THE CULTIVATOR.

THIRD] TO IMPROVE THE SOIL AND THE MIND. [SERIES.

VOL. X. ALBANY, N. Y., AUGUST, 1862. No. 8.

PUBLISHED BY LUTHER TUCKER & SON
EDITORS AND PROPRIETORS, 395 BROADWAY, ALBANY, N. Y.

J. J. THOMAS, ASSOCIATE EDITOR, UNION SPRINGS, N. Y.

TERMS—FIFTY CENTS A YEAR.—Ten copies of the CULTIVATOR and Ten of the ANNUAL REGISTER OF RURAL AFFAIRS, with one of each free to the Agent, Five Dollars.

THE CULTIVATOR has been published twenty-eight years. A NEW SERIES was commenced in 1853, and the nine volumes for 1853, 4, 5, 6, 7, 8, 9, 60 and 61 can be furnished, bound and post paid, at $1.00 each

"THE COUNTRY GENTLEMAN," a weekly Agricultural Journal of 16 quarto pages, making two vols. yearly of 416 pages, at $2.00 per year, is issued by the same publishers.

EDITORIAL CORRESPONDENCE.

Scattered Notes of Travel.

FARMING NEAR PHILADELPHIA.—The condition of agriculture in the immediate neighborhood of Philadelphia and the adjacent counties, has been long known, in many respects, as unsurpassed in any portion of the country, and hence even an imperfect report of its peculiar character and excellence, can hardly fail to prove interesting to the readers of the COUNTRY GENTLEMAN. It was with much satisfaction therefore that I accepted an invitation from my kind friend SAMUEL RHOADS, (widely known for his literary ability as editor and publisher of *Friend's Review*,) to visit some of the best farms in the neighborhood of West Philadelphia, and he generously devoted a couple of days to accompany me to several of these places. Near the city, most of the farms are small; and a large share of their profits arise from milk dairies or the temporary pasturage of the large droves of cattle on their way to the markets of the city. Outside of these, are many excellent farms, and I regretted that time would not allow me to visit but very few. The first was that of

JACOB P. JONES, three or four miles west of the Schuylkill. The country eastward is nearly level, rendered slightly undulating by streams, but at this place rising in a fine ridge—on the slope of which the residence is handsomely situated. It is a new dwelling, built of gneiss, and is a fine specimen of home-like comfort, combined with a sufficient amount of elegance. The view towards the city is rarely equalled for its character of richness and repose, luxuriant woodlands, round headed scattered trees, and fertile fields, mingling in the formation of a landscape of great beauty, beyond which the partly hid spires and domes of Philadelphia connect land and sky together. One can hardly realize that so quiet and rural a place is so near the noise and dust of a city of half a million people.

The grounds were finely ornamented with some rare trees—among them a fine Magnolia grandiflora, 12 feet high, in a vigorous state of growth, but requiring winter protection; and a Magnolia macrophylla, about the same size, in full bloom, the larger flowers of which measured one foot in diameter without spreading the petals. The leaves were two feet long and ten inches wide. Several of the newer sorts of strawberry are cultivated, among which the Wilson is decidedly preferred for its reliability and productiveness, and good flavor when allowed to become well ripened. The Triomphe de Gand has not succeeded very well.

The owner has retired from a lucrative city business, and makes farming a pleasant as well as profitable amusement. He keeps careful accounts, and his balance sheet shows a handsome profit. He occupies a farm of one hundred acres, which has been held by the family since its first occupation in the days of William Penn. It is in the form of a parallelogram, and is handsomely and regularly laid out with a tier of fields on each side of the central lane, so that all are readily accessible. The fences are all neat post-and-rail—those next the highway with four horizontal rails, and the rest with three—all being about four feet high. They cost here about $1 per rod, and last 15 or 20 years, the posts then requiring renewing. A regular rotation is adopted. It consists of 1. Corn (with a portion of the field with potatoes) on sod, with manure. 2. Oats after the corn, and rye after the potatoes. 3. Wheat, manured, seeded with clover and timothy. The fields remain longer or shorter in grass, according to the proportion of hay and pasturage needed. This term is usually four or five years, as hay and pasturage constitute the best of the profits. About 13 quarts of a mixture of clover and timothy are sown on each acre. The meadows average at least two and a half tons. The owner expects to sell a hundred tons of hay this year from this moderate farm, besides all that is needed for home use. The price is now $15 per ton in Philadelphia, which will be $1,500 for the crop sold. When higher in price he has realized over $2,000. To keep up the fertility of the land, he makes it a rule whenever a load of hay is drawn to the city, to bring back a load of manure.

The owner of this farm plows deep, and subsoils down to a depth of about fourteen inches—he is "not afraid of deep plowing." Corn usually yields about 60 bushels per acre, and oats from 60 to 70 bushels. Wheat produces about 25 bushels, sometimes 28. Rye is chiefly valuable for its straw, which, when thrashed with flail, sells at $15 per ton in the city. A broadcast dressing of guano in the spring on grass, especially if it can be given just before a rain, and costing three or four dollars per acre, affords a a handsome remuneration in the increase of growth.

The two worst weeds are garlic and oxeye daisy. The former is eradicated by pulling out—the latter by good cultivation and heavy seeding to grass. On one-half of a recently

seeded grass field, where the seed was applied evenly and heavily, not a daisy was to be seen; on the other part, where the seeding was lighter and more uneven, the surface was considerably whitened by this weed.

The barn is of stone, about 50 by 65 feet, with three stories, like the best three storied barn described in the last number of the Illustrated Annual Register. The upper story, reached by a nearly level bridge and embankment from the rising ground on one side,—is occupied by the threshing floor, from which the hay is pitched *downwards* into the bays on each side; the unthreshed grain is deposited on the hay when these bays are filled above the level of the floor. When threshed and cleaned, the grain is passed down into the granaries in the middle stories. The basement contains the stables. The owner would make an improvement in erecting another barn, by placing the *gable* towards the rising ground, so that the upper floor might be still higher or between the rafters. By this arrangement, loads of hay and grain might be drawn still higher up, and downwards pitching more completely accomplished.

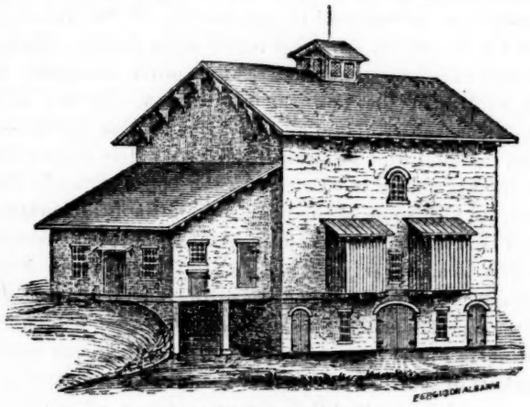
The cost of cutting hay with a machine, drying, collecting with a Pennock's spring-tooth rake, and drawing into the barn, does not in any case exceed a dollar and a quarter per ton, according to the accurate accounts kept of expenditures. Pennock's rake runs on wheels, and the operator drives over the ground by riding on the machine, and touching a lever at each discharge of hay,—with about as much ease as a lady sits in her arm chair and drives her fan. The long curved steel teeth collect the hay in such a manner as to leave it in a loose heap, and not rolled and packed together as is done by the common revolver.

But few cattle are kept in summer, but many are wintered, for the purpose of consuming the straw and affording a supply of manure. I observed the men employed in forking over the accumulations of last winter, consisting of a compact bed, as wheeled out, some 80 feet square, and about three feet deep. When loosened by forking, it formed a pile about six feet high—that is it was loosened to about double bulk. Fermentation was thus produced and foul seeds destroyed. Manure from the city is supplied at the fields at a cost of about two dollars per ton. The teams on their way back from the city after drawing in hay, bring about one ton for each horse. Among the fine cattle observed in the fields, was a very handsome cow, a cross of Durham and Alderney, which makes twelve pounds of butter per week. She resembles somewhat in form the figure of the celebrated Oaks cow, but with greater symmetry and beauty. Water is supplied by means of Halliday's windmill (smallest size costing about $80,) one day's pumping being more than enough for a week's supply. This windmill has needed no repairs, although it has run several years.

I was much pleased with the excellent spring house—a structure, by the way, deemed indispensable to a good dairy in this part of Pennsylvania. This one, although intended only for a dairy furnishing a home supply, was some 20 feet square, and as clean as pure clear cold water, granite rock, and a hard burnt brick floor could make it. A spring, large enough to fill a two-inch auger hole, boiled up in a sort of artificial rocky cavern, and flowing out, spread over the brick floor to a depth of about two and a half inches. Walks of handsomely dressed flagging, above the water, give ready access to the pans standing in the crystal water. A striking proof of the absolute necessity of pure air, as well as other requisites of cleanliness, for success in butter making, was afforded by the accidental deposit of a pile of manure some rods distant, the fumes of which were occasionally wafted by the breeze towards this spring-house. For a week, all the butter made was quite poor in quality, until the cause being discovered and removed, it was restored to its original excellence and sweetness.

One word in conclusion, as to the profits afforded by this farm. It furnishes a handsome family supply, and *over and above all that the family consume, yields from seven to nine dollars per acre as an average.* In 1861, it gave $7 per acre; in 1859, $9.

Farm of Israel W. Morris, Merion, Delaware Co., Pa. This is a large and beautiful farm of 240 acres, situated some five or six miles from Philadelphia, and is probably worth $500 per acre in market. The proprietor, now 85 years of age, has withdrawn his personal attention mostly from it, and it is cultivated under the direction of his son Wistar Morris, who is well known for the many responsible offices and trusts he holds in financial and benevolent institutions. Among other objects worthy of special attention, is one of the three barns, which in many respects is a model. Like all the best barns in this region, it consists of three stories, and is built of stone in the most substantial manner. Blocks of gneiss, nine or ten feet long, and fifteen inches square, form the pillars or posts for the sheds and open spaces; and longer strips of the same rock constitute the outer sills of the large doors. The accompanying view will nearly show its general struc-



Israel W. Morris' Barn.

ture and arrangement. The basement is devoted to stables—the carriage house is under the left wing. The central double doors in the basement, seen in the cut, open a passage under the granaries in the second story, under which the wagon is placed for receiving the grain through a trap door. The two projecting portions on each side of the granary are the corn cribs, enclosed by vertical slats on three sides, and the floor is supported by projecting timbers; and being placed on the south side of the barn, the corn is soon rendered dry. These cribs are readily filled by shovelling downwards from the cart or wagon on the floor of the third story. On this floor the grain is thrashed by means of an endless chain horse power; and as soon as cleaned is shot down into the granaries below. Straw and hay are also cut, and grain ground, on the same floor, and passed down through shoots to the animals in the basement. Large bays for hay and grain are on each side this floor, to which the loads are pitched downward; two men have emptied a large load of hay from a wagon

in five minutes. Four shoots, for passing hay and straw down to the basement, are formed like ladder work, or of four poles placed vertically, two and a half feet apart, and connected by "rounds," like those of a ladder, so that hay and straw are readily thrust into these shoots at any height.

The grounds of this fine old residence contain much that is interesting in the way of trees, shrubs and flowers. One of the most pleasing objects is the plantation of Rhododendron catawbiense, with azaleas, &c., among the wild natural shrubbery of a small ravine, where they grow luxuriantly, many of them six or seven feet high, with profuse clusters of flowers.

Farm of Isaac Garret, *Upper Darby.*—This is one of the best, if not the very best farm in the township. It contains 133 acres of excellent land. The crops are heavy, and weeds are not allowed to grow. The ox-eye daisy, so abundant all through this region, has been completely eradicated, and not a single plant could be seen. The mode practiced for its extirpation is to plant two hoed crops in succession, usually corn, both being well manured, to be followed by wheat, seeded to clover. Very few of the weeds are left, and these are then dug up. I observed on riding in to the premises two heavy fields of meadow on either side, which I estimated would yield three tons per acre—an amount which I afterwards learned was the average crop of the farm. As a proof of the fertility of the place, it is only necessary to state that forty cows and ten horses are kept upon it, beside which some hay is sold—two years ago, this surplus brought $600. The milk of the cows is sold at the farm for the Philadelphia market, at 3 cents per quart in summer and 4 cents in winter. About 240 three-horse loads of manure are manufactured annually on the place. A considerable portion of this is applied as a top-dressing to grass lands, the best time being before mid-autumn, so that the fresh grass may grow up through it, and cover it. The manure is composted by forming large heaps of alternating layers with the soil and turf of headlands. The fences being all straight post-and-rail, a strip of soil removed about two feet wide on each side of these fences takes away all that is carried or thrown up, and leaves the soil level at the boundaries of the fields. The shelter of the fence and the growth of grass prevents much freezing except in the coldest weather, and admits the removal of the turf at almost any season.

The barn is built in three stories like those already described. Different modes of securing cattle in their stalls have been fully tried, but stanchions are decidedly preferred, especially for the superior cleanliness which attends them, and the consequent improved comfort to the animals, as well as preventing the waste of hay, while they experience no disadvantage when compared with other modes. The accompanying figure (Fig. 1,) shows the mode of constructing these, and in answer to the many inquiries from the readers of the Country Gentleman, I give the dimensions of the different parts. The drain, into which the manure falls, is five feet two inches from the stanchions, is 18 inches wide, flat on the bottom so as to receive a square shovel for cleaning. In large establishments, the movable vertical bars might be all connected with one long horizontal rod, as has been sometimes successfully done, so as to loosen or secure fifty cows at a single motion of a lever—the animals all receiving their feed when returning to the stables, every one in its place.

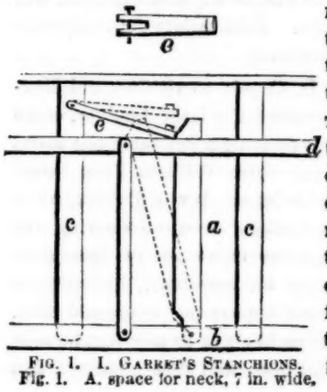


Fig. 1. I. Garret's Stanchions.
Fig. 1. A. space for neck, 7 in. wide, edges rounded—b. sill at bottom, 6 in. sq.—c. c. posts 3 ft. 2 in. apart from centres, 2½ by 5 inches, horizontal pieces, d, bolted on each side, leaving a space the width of posts, for the movable slats to play in. The latter are oak, 1¼ by 6 inches, rounded at edge—e. latch, about 2 feet by six inches. The dotted line represents it as raised, when the weight of the movable slat causes it to fall back and release the animal.

Edward Garrett's Farm adjoins the preceding one, and consists of 166 acres of beautiful table land, nearly or quite equal in fertility and management to Isaac Garrett's. The locality is a beautiful one, and commands an extensive view, embracing distant glimpses of the spires of Philadelphia, the great dome of the Pennsylvania Hospital, the Delaware river whitened with many passing vessels for a distance of many miles, and the faint blue ridges of New Jersey. The whole farm is neatly divided into regular fields with post and rail fence. The cost of constructing these is as follows, for each length of 11 feet:

Rails, 4 at 10 cents each, drawn from railroad.....	.40
Posts, dressed and finished for use,.....	.25
Setting, 8 cents per length,.....	.8
	73

Or a little over one dollar per rod. These fences last fifteen years or more, without any repairs whatever, when new posts are required; the rails, which are chestnut, lasting 30 or 40 years, or for two sets of posts. Some good stone walls are built on this farm. They are set in trenches 18 inches deep so as to be beyond the reach of frost, and are four feet high above ground. Their whole cost is a dollar and a half per rod, and being secure from tumbling by frost, and lasting an indefinite number of ages, are regarded as the cheapest barrier for the farmer. The three story barn is 56 by 66 feet in dimensions, and like the others I have described, receives the hay and unthreshed grain at the top, where it is pitched downwards; the granary being on the floor below and the stables in the basement. An endless-chain horse power on the upper floor does the threshing, and cuts the hay and straw for feed. Shoots carry down the hay straw and grain to the animals below. Stanchions are exclusively used for securing the cattle, and are preferred to any other fastenings. They are made similar to those of Isaac Garrett, but the details of construction are somewhat different. I give a figure, that the readers of this paper may judge and select for themselves such parts as they like best. The top piece has mortises for receiving the stanchions, and requires more labor to make than the other which is merely made of two horizontal boards nailed to the fixed stanchions, the movable ones playing loosely between these boards. The manger is about 2½ feet wide at top and 1½ at bottom; and for cattle of the size here raised 5 feet 2 inches is the best distance between the manger and manure gutter. The animals never waste any hay under their feet where these stanch-

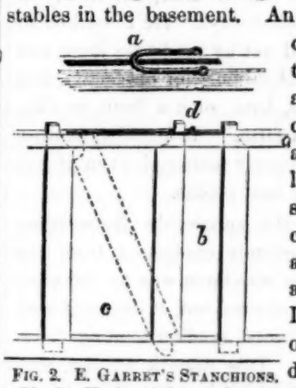


Fig. 2. E. Garret's Stanchions.
Fig. 2. Horizontal top piece, a, 5 by 3 inches—mortise in it 1½ in. wide, for movable slat to play in—the latter 8 by 1½ in. rounded on edge; fixed vertical piece, same size. Space for neck, b, 7 inches; wider space c, 15 inches, which may be partly covered if necessary by a vertical piece nailed on, as in fig. 1. The movable piece d. is secured to its place by a loop of iron resembling a clevis.

ions are used, but always waste largely when secured by chains or straps. A double acting water-ram supplies a constant stream of water from a large spring one-third of a mile distant, and furnishes the dwelling and all the animals with an abundant supply.

About 50 cows are kept on this farm, chiefly for supplying the city with milk. They make about 250 two-ton loads of manure. It is not usually composted; but an abundance of straw litter being used, all is wheeled out as it is formed, and deposited daily in a large square pile. Here it ferments moderately, and not so rapidly as when forked over, and is thus reduced to precisely the right condition for use. The rotation adopted is, 1. Corn with manure; 2. Oats; 3. Wheat, seeded to timothy and clover. As oats is an exhausting crop, better wheat is generally obtained by sowing after corn. Sheep would prove profitable in raising for the butcher, were it not for their destruction by the dogs. In fact, I did not see fifty sheep during all my rides in Delaware county. It seems greatly to be regretted that a most important branch of profitable and enriching husbandry should thus be cut off and excluded because dog owners persist in keeping such nuisances. Young turkeys are very successfully raised by feeding them, during the first week, on *hard boiled eggs*. Poultry raisers have found the successful rearing of the young animals the most difficult part of turkey management; but by thus using eggs for their food, very few are ever lost.

These two farms, now occupied by Isaac and Edward Garrett, amounting together to 300 acres, were formerly, when under a different ownership, unable to support 30 head of cattle—now they sustain about 100. Edward Garrett regards good farming land in this neighborhood as worth at least $200 per acre, as a profitable investment for the products afforded, and has offered more than this price for an adjoining farm. His own farm yields between four and five thousand dollars in its aggregate products per annum—a large share being in the sale of milk, but nearly as much could be obtained in other ways. He remarked to me that any person who could not by moderate labor and attention furnish a comfortable support for his family, and lay up $1,000 a year besides, from such a farm as this, "scarcely deserved to have a farm." It furnishes another proof, that high farming, properly managed, even if the land is high priced, gives the best profits.

I should have added that the apparently all-pervading ox-eye daisy has been completely eradicated from the whole farm, and not a single specimen was to be seen. After being once thoroughly cleared out, it does not easily return, high fertility and good seeding tending to remove as well as exclude it. This remark applies, with still more force, to the garlic, which has disappeared from these fields.

Residence of Charles Yarnall.—This fine place has been occupied only about four years, and was selected as a comfortable rural home for the owner who has retired from a successful city business. It consists of some 40 acres—about one-half of which rises with a handsome slope from the entrance to the mansion, a distance of forty rods. Scattered natural trees give a fine appearance to this lawn. On one side and towards the rear, the ground slopes off at first gradually and gracefully, and afterwards more abruptly, to a thick wild wood, which is traversed by cut walks, and which afford all the seclusion to be found far away from city neighborhood. A fine stream, 10 or 15 feet wide, passes through this wooded valley, and seats are occasionally placed on its banks of moss-grown, fern-covered rocks, and its waters are broken by gentle ripples or flashing cascades. All these are within five minutes walk of the dwelling. The out-buildings are unobtrusively placed in another portion of this wooded valley. The kitchen garden is near them, and being warm and low, and sheltered from winds on every side, vegetables and fruit ripen early. Strawberries mature a week or two sooner than on open ground. A fertile soil and good cultivation give very fine specimens. I measured some berries of the Triomphe de Gand, not mature, and therefore not fully grown, that were a little over two inches longest diameter. As in most other places in the neighborhood, this variety bears moderately. Dwarf pears showed by their vigor and luxuriance of growth, the good cultivation they received; but a decided superiority was observed in those which received *broadcast* cultivation, over such as stood in a cultivated strip in the grass.

I made a brief call at the residence of Wm. D. Cope of Merion, who has occupied it only six months, and is consequently just beginning improvement. Before removing to the premises, he erected a fine stone dwelling and barn, both built in the best and most substantial manner, and roofed with slate. The stone used consisted of broken and blasted boulders found on the place, the removal of which, for this purpose, left fine smooth fields. The kitchen garden was surrounded by an arbor vitæ hedge, in good growing condition, 4 feet high, and planted only last year. The plants were several feet high when removed, which was very successfully done, not a single failure being seen. A natural pile of huge boulders, near the house, had been left for rock-work, which served the purpose admirably, and creepers and ferns had been planted for covering them. It is only such natural specimens of rock that are entirely successful, as it is difficult, if not impossible to remove and collect those which are large enough to look well. (I remember being struck some years ago with the contrast between natural and artificial rockwork, on a celebrated place near Boston, where a formal artificial pile of comparatively small stone had been made in the garden, looking somewhat like a pile of eggs, while a few rods distant across the boundary, and in a small natural pine grove, were huge masses of granite, partly hid in earth, and covered with moss, and wreathed with old tree roots, presenting a beautiful and picturesque appearance.) There were several fine old pear trees near the house, one of which, a tree of the Early Rousselet, is over 40 feet high, and measured 6 feet 9 inches in diameter several feet above the ground. Although supposed to be over 100 years old, it was thrifty and vigorous, and bears abundant annual crops. This variety generally succeeds finely in this neighborhood.

On our way from Wm. D. Cope's, to visit the old Haverford meeting-house, we passed the large boulder, some ten feet in diameter, and presenting a flat table top about four feet above ground, on which William Penn, when governor, stopped to take his lunch. It was, I think, when passing this road, that an incident occurred showing the kind heart and unostentatious character of this great man. Travelling to meeting on horseback, he overtook a little barefooted girl whose appearance interested him. Learning that she also was on her way to meeting, he took her up on his horse behind him, and thus governor and

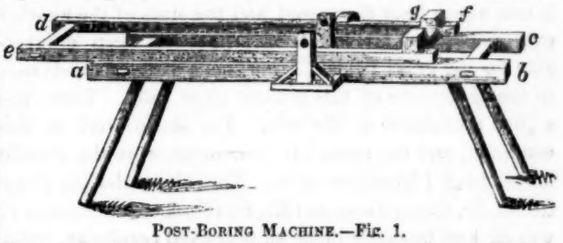
barefooted girl rode on together. How many of our present governors would do the same? The Haverford meeting-house, already alluded to, is the oldest in the State, being built in the time of Penn. The mode of warming it is a curiosty, hot-water pipes, and Chilson's furnaces not being then in use. An oven was built in the stone wall on each side of the house, the mouth of the oven opening outside, and the smoke also passing out a few feet above. The fires were thus built from the outside, the ovens projecting within and warming the apartment. These had been removed, but the stone hood over their mouths and the short chimneys above remained. A white oak tree, with broad spreading top, and trunk five feet in diameter, stands in front of this old house.

Fine Growth of Trees.—At the residence of my kind friend Samuel Rhoads of West Philadelphia, (a fine old place occupying 50 acres, a few miles west of the Schuylkill,) are some good specimens of the rapid growth of transplanted trees. Several beautiful Norway spruces, which have been planted 23 years, have trunks now measuring two feet in diameter at a height of three feet; the lower branches form a circle of 35 feet in diameter; and the trees themselves are about 50 feet high. A red cedar, planted in 1802, is now 40 feet high and 18 inches in diameter. A tree of the Early Rousselet pear, 60 years old, is 23 inches in diameter, 40 feet high, and affords abundant crops.

A Glance at Montgomery County Farming, Pa.—In spending a day at the residence of George Spencer of Moreland, Montgomery county, I rode through portions of this and some adjoining townships. Agriculture here is in a fine condition, although not so celebrated as in Chester county. There are no princely farms. In the township of Horsham, the largest is only 155 acres. Farms here are worth $100 per acre and upwards, and it is only those that are best managed that pay full interest in nett profits, although few estimate the amount of comfortable supplies furnished their families. G. Spencer, who has long been familiar with the agriculture of this region, gave the deliberate and very encouraging opinion that the aggregate products of the land had fully *doubled* within the last 25 years—which he attributes to the skillful saving and use of manure; to drawing manure from the city; and to plowing in green crops of clover. Hay and other farm products are drawn to Philadelphia, 12 or 15 miles, and manure brought back by the returning wagons. To economize the time of the driver, four-horse teams are employed, and on these excellent roads each horse will draw nearly one ton of manure. They pay $1.50 per horse for the manure in the city, and it costs about $2.50 per ton on the land, well repaying the outlay. The soil through this region is light, and the manure is chiefly applied to corn land in spring before plowing, but frequently to wheat. Guano, applied to wheat, at the rate of 200 lbs. per acre, usually pays well, although the first crop may not fully reimburse the expense, which is $6 per acre besides spreading. It is sown by a spreading machine, before the wheat, and is worked into the soil by the grain-drill in depositing the seed. The only objection to the extensive use of clover as a green crop is its promoting the spread of garlic. The most *enriching* rotation is, 1, corn with manure; 2, oats seeded with clover; 3, clover plowed in the second year, and wheat sown on the sod; 4, clover and timothy after the wheat for two or three years. Garlic is the only objection to this course, and the cleanest rotation is corn, oats, wheat, then clover. Spring plowing before seeding, favors the increase of garlic, and autumn plowing tends to lessen it; hence the importance of plowing the field for oats in autumn.

The average product of the land is 40 bushels of corn per acre, 50 bushels on the best farms; oats about the same; wheat 18 to 20, although 28 to 30 are sometimes obtained—and one and a half tons of hay. The fences are nearly all,—probably at least nine-tenths,—good post and rail. The cost is about $1 a rod. Occasionally, old worm-fence is to be seen. Chestnut is mostly used for rails and posts. The best time to cut it, all things being considered, is in the month of February. As soon as the bark can be stripped from the logs in springs, they are split and the rails at once placed where they will season rapidly, which adds much to their durability, and renders them nearly as lasting as if cut in summer. Without this care, they decay much sooner. The object of cutting during the latter part of winter, is to induce the stumps to send up suckers for a second growth, which they do profusely, and which would not take place if the cutting were done in summer. Lime is generally used as a fertilizer at the rate of about 40 bushels per acre—a larger quantity is attended with no increased advantages. The cost is about 7 cents per bushel.

As the mode of constructing post and rail fence in this part of Pennsylvania is likely to be adopted in other portions of the country as timber becomes scarce, I have taken some pains to ascertain the best mode of preparing the posts, adapted to hand labor, and which may be done on rainy or stormy days, or in winter. The one here figured (fig. 1) consists of a frame *a b c* made of scant-



Post-Boring Machine.—Fig. 1.

ling, and placed horizontally on four stout legs. This is the support of the machine. On this is another frame *d e f*, which may slide backwards and forwards, and which receives the post to be bored. The post is wedged into the space *g*, and the auger being inserted into the two holes shown at the middle of the frame, it is driven through the post by turning the handle or winch. Marks are made on the sliding frame, to show the precise place to bring the posts, so that all may be bored alike—the auger remaining fixed. Fig. 2 shows the bed piece for receiving the post on a larger scale. Fig. 3 exhibits the contrivance for securing the post firmly to its position for hewing or dressing with the axe—a cavity being made in a log for receiving it, when the iron point driven in secures it.

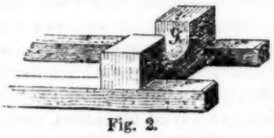


Fig. 2.

An important improvement might probably be made in the boring frame by placing it in a slightly inclined position (as by shortening the legs on one side,) so that when a fly-wheel is attached to the auger, its weight

Fig. 3.

would cause it to descend into the post. This fly-wheel might be a common grindstone, in the absence of anything better, attached to the auger.

In constructing the fence as many readers know, the posts are set two and a quarter to two and a half feet deep, and each length of rails inserted before the next post is fixed in its position. The rails cannot then be displaced, so long as the fence stands. The rails being cut wedge-form at the ends, pass each other in the holes, and if coated with gas-tar where entering, the fence would be rendered more durable.

In my notices of Cayuga County Farming last summer, I furnished some description of this mode of making fence, where timber is somewhat cheaper, and where it costs about 80 cents per rod. Next to stone wall, it is probably the cheapest straight fence for ordinary farm subdivisions. J. J. T.

LETTER FROM COL. JOHNSON.

MR. WEBB'S SALE OF SOUTH DOWNS—AGRICULTURE IN THE EASTERN COUNTIES—CROPS BEHIND—WELCOME AT THE EXHIBITION—SUCCESS OF AMERICAN EXHIBITORS—A GRAND SHOW.

INTERNATIONAL EXHIBITION, 1862,
U. S. DEPARTMENT, July 21st.

MESSRS. L. TUCKER & SON—On our arrival here on Tuesday last, I found a letter from Mr. Strafford, advising me of the closing sale of Jonas Webb's South-Down flock to be held the next morning (Wednesday.) Mr. Cornell and myself, and Mr. Dagwell of Utica, took an early train and reached Babraham in time, and were most cordially greeted by Mr. Webb. On passing through the eastern counties we had a glimpse of the state of agriculture, which upon the whole is quite encouraging—though the season is two weeks later than usual, and the state of the weather ever since our arrival at Liverpool has been unfavorable for the grass fields. I can see a very great advance in the agriculture of this country since 1851. There was a good attendance at the sale. The sheep were in fine condition, and the rams, 148 in number, were the evenest lot of sheep I have ever seen. The sale, under the direction of Mr. Carter Jonas and Mr. Strafford, commenced at 12 o'clock, and proceeded with an order and regularity, which was much to be admired. The sales were rapid, and everything seemed to be satisfactory. Buyers from the Continent were present in large numbers, and bought, I think, largely, and the sale was closed about 6 o'clock, when the *last* of the Babraham flock passed out of Mr. Webb's hands and the South-Downs are no more to be a specialty here. Mr. Webb, at the close of the sale was called out and made some very appropriate remarks, and thus closed the great sale. The amount of the sale was about $28,500.*

On Thursday we visited the exhibition, and I was most cordially welcomed by the Commissioners, and was glad to find that Mr. J. E. Holmes, our Acting Commissioner, had performed wonders in the arrangement and disposition of our articles. We had four jurors, most efficient men, and I believe all of our articles received attention, and as the jurors close their labors to-day, the awards will be known early next week, and we are assured that our contributions will receive a fair share of medals.

Every possible attention has been given to our department by the Royal Commissioners, and Prof. Owens, who has charge of the foreign department, has laid us under obligations that we can never fully repay, by his constant endeavors to provide a proper place for our articles. And when it is recollected that we did not have our goods here until long after the time for reception had expired, it may be seen how much we are indebted to him for favors received.

I called on the Secretary Royal Agricultural Society, Mr. Dare, and every attention was given to us, and we were most cordially desired to be present next week at the opening of the Battersea show. It promises to be *the* show of the society, and I will furnish you as early as practicable an account of the exhibition.

The exhibition in the building exceeds far all my expectations—progress everywhere is most manifest, and the world has moved in every direction since 1851—most, I think, in the machinery, implement and manufacturing departments, though a great advance in the art division. I hope to be able to furnish you with some description of the implement and machinery department soon. B. P. J

* Of the rams there were 148, and of ewes 289; the former realizing 3511*l.* 2*s.*, and the latter 2209*l.* 6*s.*, the total amount for both being thus 5720*l.* 8*s.* There was a very large attendance on the occasion, more especially of the breeders of Sussex, the original home of the South-Down. Many of the animals were bought for different parts of the Continent of Europe. The portion sold last year sold for £10,926 10*s.* so that the whole flock has realized 16,646*l.*—English paper.

[For the Country Gentleman and Cultivator.]

HOW I HIVED A SWARM OF BEES.

A fine large swarm of bees lately took a fancy to alight on the top of a locust tree, about 28 feet from the ground! The tall slender branch would support neither man nor boy. To saw the limb off would precipitate it to the ground, kill many bees, and scatter the rest. The way I did it may possibly be of some use to novices on future occasions. A man could not, without incuring danger of breaking down, approach nearer than 15 feet. I first tied a handsaw firmly to the end of a long pole. I then tied a small stone to a cord, and with another long pole pushed this stone over the small branch on which the bees had fastened, so that it might draw the end of the cord over the branch, and down to the ground. Then taking out the stone, the other end of the cord was passed through the loop which held the stone, and drawing on the cord the loop was drawn up and firmly held the branch. Then with the pole the cord was lifted and placed over a fork just above the bees, made by sawing off a small shoot on the tree. I was now ready for action. While an assistant held the end of the cord on the ground, the limb holding the bees was carefully sawed off—the cord holding it from falling. It was carefully lowered down to the ground, carefully carried to the table on which the empty hive had been set, and the bees shaken off in the usual way. About as much time was required for the whole operation as for me to tell the story.

A still better way to hive bees, and easier, is to provide beforehand two or three hiving boxes, on the end of poles of different lengths, each to be used as the bees light higher or lower. They may be simple board boxes, holding a peck or more, open on one side, and fastened to the end of the pole. When the bees swarm, hold this box among them, and they will most likely alight in it; but if they do not, and begin to settle in a tree, strike the open side of the box a few times against the point where the bees are beginning to settle, and they will be either jarred into it, or take possession as a matter of choice. As soon as they begin to settle, make a crow-bar hole in the ground, and set the pole in, or lean it against the tree, if more convenient. When settled, remove the pole, box and bees, and jostle the bees in front of the empty prepared hive. If, instead of setting the hive as usual on a table, a shelf be thrust under the one they are intended to occupy, they may be jarred off on this shelf, and will immediately take possession, and no removing afterwards be required.

Experienced bee-keepers who make artificial swarms, will, of course, need no instruction of this kind, but to others these hints may be useful. X. X.

☞ Will officers and members of County and other Local Agricultural Societies, kindly see that we are apprised of the time and place of holding their Exhibitions the present season?

PLOWS FOR CUTTING DRAINS.

I wish to obtain some information with regard to *drain plows or ditch diggers*, as I am about to tile drain a large and level piece of clay land, on which I would like to employ as little hand labor as possible. Do you know from your own knowledge, or from that of some reliable person, any such implement which can be depended on as of practical utility in putting down, or assisting to put down drains, in stiff clay land, where there are no stones or other obstructions.

Pratt's Ditch Digger, (I think this is the name,) I have somewhere seen favorably mentioned. Do you know anything of its capabilities? If you can furnish me with information on this subject, I will be happy to remunerate you for any trouble or inconvenience you may subject yourself to in procuring it. If you recommend any such implement, please inform me of its price, and the name of some respectable firm from whom I might order it?

L'Original, Canada West. AGRICOLA.

Our correspondent will find an article on this subject, with several engravings, giving the results of several years experience with ditching plows, on pages, 296, 7, and 8, of second volume of Rural Affairs. As we have frequent inquiries on this subject, we give a part of the article:

In most localities where tile drains are made, two-thirds of the labor of cutting is loosening the earth with the pick, before shovelling it out. By means of the ditching plow, this laborious process is performed by horses. One span, with a good plow made for this purpose, will loosen the subsoil fast enough for eight or ten men shovelling, and cutting about 100 rods 3 feet deep in a day; or an hour or two each day with the plow will keep two men at work. If the subsoil is very hard, this work should be done early in summer. The implement is drawn by two horses, attached to the ends of a main whipple-tree about seven feet long, one walking on each side of the ditch. From one to three times passing, will loosen the subsoil five to eight inches, which is then thrown out by narrow shovels, on both sides, so that it may be easily returned after the tile is laid, by means of a common plow drawn as before by the long whipple-tree.

The adjustable ditching plow, fig. 1, admits of so great a change in the height of the beam and handles, that it may be run down in the bottom of a ditch to a depth of four feet. It is perhaps the best implement of

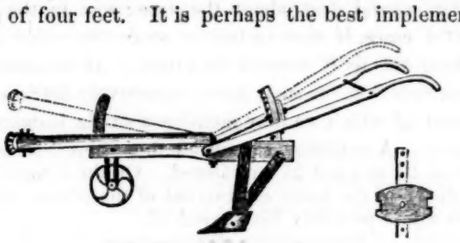


Fig. 1.

the kind for all purposes and soils. The movable portion of the beam is attached to the fixed beam by a stout loop and staple, and rises on a cast iron arc which passes through it, as shown by the dotted lines. The handles rise on a stiff *wooden* arc, (as the dotted lines exhibit,) a piece of thick plank shown in the small figure on the right, being placed between the handles and fastened to them, to render them more firm and steady. The iron work, although light, is braced so as to impart great strength and security. The point is screwed on separately, and is nearly the only part that wears by use.

A modification of this plow rendering it simpler, and capable of running down to a depth of three feet, is shown in fig. 2. Instead of arcs, small uncurved stems are used for raising and depressing the beams and handles. A slot

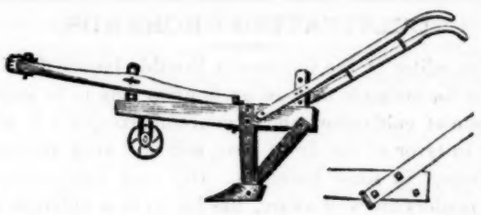


Fig. 2.

is made in the movable beam, and three holes for different heights, in the handles. The rest is similar to fig. 1.

[NOTE.—*Pratts' Ditching Machine*, described in a former number of the REGISTER, although working well when new and in perfect order, has been found on account of its great weight and complex form, and consequent liability to derangement and breakage, to be of little or no practical value for general purposes.]

These adjustible ditchers are made by M. Alden, Auburn, N. Y.; W. McFarland, Union Springs, N. Y., and by others. They cost $8 to $12 according to modification. When skillfully used, they save much labor, except when the land is extremely stony. Used bunglingly, they are no better than a handy hand-ditcher. In the soil which our correspondent describes, we think they would effect a great saving of labor.

[For the Country Gentleman and Cultivator.]

Large Yield of Milk and Butter.

EDS. CO. GENT.—I have just noticed an article of "AGRICOLA," in CO. GENT., page 399, reviewing statements of yields—from individual cows and dairies—of milk and butter, as found in former vols. of CO. GENT. This brought to mind a neglected slip of paper stored in my vest pocket, giving an account of the "doings" of a milker belonging to Mr. JAMES Q. LOTSPEICH, an old and reliable citizen of this place, which was given me by Mr. L. some days since, to forward for publication to some agricultural journal.

But to Mr. L.'s statement, which, though not so full as desired, is reliable so far as stated. He advises me that hereafter he will observe more carefully and for a longer period, the future results.

Cow, 9 years old—half-blood Short-Horn with native. In first week of May, from grass alone, during first *four and a half days—nine milkings*—from cream of milk of morning and night, was churned 9 1-16th lbs. of butter.

In first week of June—*fourteen milkings*—280 pounds of milk.

The first statement of yield of butter is larger, during same length of time, than any observations in the letter of your correspondent before me. In *second* column is given results of Ayrshire breed, for six days milking—8 pounds of butter. And in *third* column, of a grade Short-Horn, from 7 days, 14 milkings, is given 15¼ pounds of butter.

Mr. L.'s cow is in the "front rank" of these statements. Let us hear from other sections. I consider these statements interesting and valuable, as tending to show what breeds are the best milkers and butter producers in all sections. "W." *Hickory Grove, London, O., June* 30.

☞ We see by our exchanges that strenuous efforts are being made in several counties to enforce the law passed by our legislature last winter, to prevent cattle from running in the highways. Though some ill-feeling may be excited by the enforcement of the law at first, we hope a united and strong effort will be made throughout the State to abate a nuisance which has been too long a disgrace to the State.

CULTIVATING ORCHARDS.

The editor of the Gardener's Monthly insists that it is better for orchards to grow up to grass than to be kept in a state of cultivation, and a doubtful exception is made only in favor of the dwarf pear, and of "weak and stunted trees," in some instances. Our own experience, as our readers are well aware, has led us to a different conclusion, at least so far as the eastern and middle States of the Union are concerned. There may be localities in the rich and warm west, where a more moderate growth may be advantageous, and this exception holds more particularly in relation to the standard pear.

Many will agree with us in saying that young or newly set orchards will be greatly injured or nearly destroyed by allowing grass to grow among the trees. This is especially the case with the peach tree. Every person of observation may have seen hundreds of dead trees, which have been lost solely by being set in meadows. It would be wiser to plant corn in a meadow, without plowing or cultivation, for the total loss which would result would be only a loss of a peck of seed per acre, instead of a hundred young nursery trees. We could go on and enumerate pages of instances where young trees have perished by hundreds from a want of culture, and also where whole orchards have sprung up with a good healthy vigor, with scarcely a missing one, when subject to decent cultivation. Peach and apple trees, set in grass or sowed grain, *if they live*, will grow about two or three inches yearly; if cultivated, they will grow about two feet. At the former rate of growth, ten years or more would be required for them to attain the size and value they would acquire in two or three, under good culture. We have never known a single instance, where an intelligent cultivator has tried both modes side by side, without adopting the opinion here expressed.

Yet, if there are localities at Germantown or elsewhere, where the soil is so fertile that young or old trees standing in grass, will make shoots annually two feet or more in length, cultivation would obviously be unnecessary. We have not met with such soils except at the west, and rarely there.

The difference between a cultivated and a grass surface is perhaps less obvious with a full grown apple orchard than with most other trees. If treated as the Gardener's Monthly recommends in the same article, namely, with annual top-dressings of manure, they would fare better than nine-tenths of the orchards throughout the country. The editor of that journal, however, says "he cannot remember an instance, where fruit trees in a well-kept and cultivated garden, remained perfectly healthy for a long period, or ever produced but a moderate crop of fruit." His experience has certainly not been fortunate; for many instances might be cited to the contrary. The most productive and healthy old apple trees which we know, are those which stand in old, fertile, constantly cultivated gardens. One of these trees has borne forty bushels as a single crop; and none of them have the stunted, mossy appearance nor the dead shoots and branches, observed in some neighboring orchards in grass. There is, however, some ground for the observation occasionally made, that neglected trees are hardier—the fact is, none but the very hardiest individuals can endure such treatment; all the rest of weaker endurance have long since perished, and these only remain.

If virtue is its own reward, there will be persons who will have little enough.

Management of the Bare Stems of Trees and Watering.

It is familiar to horticulturists and physiologists, that s long as trees continue in a state of vigorous growth, they keep cool or maintain a low temperature in every part. An apple, while growing on the tree, or remaining attached to the branch after maturity, will not become heated, with the severest rays of summer pouring upon it. When it is severed and falls to the ground, it soon becomes hot in the sun's rays. It is so with the stem or trunk of a tree. If there is a free growth, the bark is rarely injured by heat; if the tree has been checked or rendered nearly dormant by previous transplanting, or by neglect in cultivation, the danger from this cause is greatly increased. We frequently see half dormant trees with burnt and peeling bark on the south side, after a hot summer. The remedy for this evil is good cultivation in the first place, and if this is insufficient, shading the stems by tying on a loose covering of straw, and if but few leaves have come out, keeping this straw wet by occasional applications of water. Transplanted trees sometimes remain green many weeks without expanding their leaves, and they are often injured in this condition by soaking the roots, and leaving the stem to dry. Roots need a copious supply of moisture only when they have plenty of leaves to throw it off and pump it up from below.

Many newly set trees are killed by injudicious watering; the water is poured on the surface, and first wets and then hardens it, and renders it worse than before.* If any watering is given, the soil should be first taken off the roots, that it may passs freely among them, and then the mellow earth is to be replaced. But even this must afford but an irregular supply, and cannot be so sood as the constant and uniform supply furnished by a well cultivated mellow soil, or by a well mulched surface. In conclusion, our readers who may have planted out *cherry trees* the past spring, may properly be reminded that there is nothing that will more certainly secure them from the midsummer death to which they are so liable in hot seasons, even after making two or three inches growth, as a thick heavy mulching of old straw, hay, or saw-dust, extending several feet about the tree; and in the more doubtful cases, it may be best to straw the whole stem, and keep this daily watered for a time. At the same time surface watering for such trees is positively detrimental; in proof of which we may mention a single instance out of many. A neighbor set out 50 fine cherry trees—he watered 25 and left 25 unwatered. Of the former, one-half died; of the latter but two out of the whole. A good mulch would probably have saved all.

Root-Grafting the Pear.—A correspondent of the *Gardener's Monthly* says that the result of his own experience combined with observation of the experiments of others in grafting the pear, conducted in the most careful manner, leads to the belief that root-grafting the pear is a failure. He remarks, "of fifty thousand that I have known to be carefully grafted, not 1,000 have lived. I am sure that thousands of pear stocks and much money are yearly wasted by beginners." Our own experiments have not been quite so extensive nor quite so unsuccessful, but we have long since given up the practice. Yet it has succeeded well with some, who have used *whole roots* of the freshest, strongest and most fibrous rooted stocks, set in the best pear soil.

* For this reason, autumn transplanting is often found more unsuccessful than when done in spring,—the rains of autumn and winter converting the surface to mud, which afterwards bakes as it dries, and proves detrimental to the growth of the tree. If the soil is rendered mellow as it always should be, this unfavorable result of autumn removal can never take place.

The Crops at Home and Abroad.

The farther development of the Season in Europe is unfavorable for a full crop. As illustrating the present prospect, we condense the following from the Scottish Farmer of June 25th:—

The prospect of an early harvest has now gone from us, as in Scotland we are at least a week later than usual, with but little prospect of forcing weather soon, to make up for the delay. In England, reports from the wheat-growing counties speak very poorly of both wheat and barley, which is stated to have suffered more during the last eight days than it has done before, and is said not only to be sickly-looking, but to have gone off very much, especially on the higher and more exposed lands. Wheat comes very slowly and irregularly into ear, and the blooming season being now at hand, a change to warmth and sunshine is anxiously looked for. It now appears as if we could scarcely have a general wheat harvest until September; and if so, it carries us into an additional consumption of at least two or three weeks, or perhaps one month's reliance on foreign corn, more than was calculated on, and will to that extent have a certain tendency to enhance prices. In consequence of the uncertain state of the weather, prices have again gone up 1s. to 2s. per qr. on wheat at all the leading markets in England and Scotland, with an evident tendency to a further advance should the season continue unfavorable. * * * From France complaints of the weather are equally strong, and the north is said to have suffered considerably from wind and wet, and to a greater extent than the southern departments. There is a general impression that under any circumstances the wheat crop can now scarcely be up to an average, and even that is dependent on the weather hereafter proving propitious. * * * From the Baltic provinces accounts of the season are also unfavorable, far too much wet having fallen; but, as the and there can stand a good deal of rain, it is hoped that the njury done will not be extensive.

In this country, on the contrary, we are inclined to think that, *as a whole, during several weeks past, the prospects of a good yield have been brightening perceptibly from day to day.*

In visiting Rochester last week we met incidentally T. S. Faxton, Esq., of Utica, who has very lately returned from an extended tour in the West. He represents the prospect of Spring Wheat as now promising to *yield quite as large a crop* as in 1861, for, if it may be lighter to some degree upon the ground, he thought the surface sown sufficiently extensive fully to counterbalance this deficiency.

As to crop prospects in the great wheat growing region of which Rochester is the centre, we derived some interesting statements in conversation with B. M. Baker, Esq., the energetic and practical President of the Monroe County Agricultural Society. Mr. Baker's opportunities of forming an opinion have been unusually good; and he thinks that Wheat prospects through the Genesee Valley *have never been as favorable in any year since the midge first made its appearance there.* Moreover he not only thinks the crop likely to be a full one, but says that a much larger breadth than usual is sown to wheat in Western New-York; and that the aggregate crop cannot but exceed that of 1861, which was regarded as the largest that had been harvested for several years. Mr. Baker thought Oats likely to be a light crop, and the hay crop also light, especially upon old meadows. Cutting is beginning just about this time. Corn can hardly be a full crop, unless favored by a warm autumn and late frosts; but it looks more forward, we noticed from the railway, within twenty or thirty miles of Rochester, than in the eastern part of the State, and Mr. Baker thought it also better there than in Canada. The Barley promises to be very fair, and Potatoes are good. Peas are looking well, and are sown in larger area than for many years past. Of Beans the surface sown is also very great; a heavy product may be expected, and if anything like present prices are obtained, this at least will be a profitable crop. The demands of the army are likely to be large enough alone to create an immense consumption.

It is pleasant thus to find that our Agriculture again bids fair, not only to supply all the wants of our own people, but also to make up for probable deficiencies in the production of other countries. The abundant crops of the past two years have been all that has sustained us during the present enormous struggle—completely preventing an entire national bankruptcy, and, under Providence, overruling the designs of other nations, and placing them in a position of dependency upon us, instead of in that of dictation or armed antagonism. It is with lighter hearts, then, and higher hopes, that we may turn from the delays and uncertain fortunes of War, to the favorable prospects of the coming Harvest; and while we patiently await the triumphant success which, as we fully believe, will eventually crown our arms, we may perhaps discover, or think that we discover, upon our Farms, cheering indications that Nature herself is siding with us, not less in what she is so abundantly promising here, than in what she seems to be withholding abroad.

Central Park Conservatory

The last number of the Horticulturist has an unusual amount of valuable and interesting matter. We condense some of it, and add occasional remarks.

A handsome wood engraving, by J. W. Orr, printed in colors, forms the frontispiece. It presents a fine design, and somewhat resembles in external appearance, the conservatory at Kew. It is to be completed at the end of next year. The proprietors, Parsons & Co. of Flushing, relieve the city of the expense of erecting and keeping it filled and in order. They are to pay a rent for the ground, and have the privilege of selling cut flowers and plants in pots. They are to keep it up in such a manner that visitors at the park may see at all times at the conservatory, all that is new, rare, or beautiful, to be found in the country, in the floral line. It is to be the index as well as educator of the public taste in these matters. The apartment for Camelias will be 40 by 60 feet; for ferns and orchids, 40 by 60, besides room for roses, cut flowers, &c. All these are to be on the lower story. The interior of the upper conservatory is to be laid out either in the Italian style, with broad walks, or in the natural style with winding paths. Exotic vines are to festoon the rafters and columns, and exotic plants, as palms and bananas, are to stand in carpets of Lycopedium, with well arranged masses of flowers, constantly supplied from hot-houses. The upper room of all is to be a winter garden, and singing birds add to the interest of the scene. The Fernery, with rock work, and trickling streams of water, will not be omitted. On pleasant days there are now 8 to 10,000 visitors to the Park, and it is thought that as it increases in attractiveness, 10,000 daily will visit the conservatory. It is not expected that Parsons & Co. will be able to supply all the plants needed, but will furnish them on commission from many other establishments; and visitors will be supplied with lithographs of plants, plans, designs for gardens, window-conservatories, green-houses, &c., and public taste cultivated and increased. On the whole, this is an excellent design, and we hope it will be carried out, with improvements.

Result of the Trial of Mowing Machines at Fishkill Village, N. Y.

Name of Machine.	No. of Machine.	Length of swath Cut.	Width of Swath	Time of Cutting.	Draft in Pounds.	Travel of Horses per Minute.	Square Feet Cut per Minute.	Mechanical horse-power expended while cutting.	Mechanical horse-power expended per Acre.	Mechanical horse-power expended for 10 Hours.	Time Required to cut an Acre.	Acres per Day of 10 Hours.
		Feet.	Ft. In.	M. S.		Feet.					Min Sec	Acres. Rods. Feet.
Wood's, Hoosic Falls, N. Y.	1	330	4	1 40	218	198	792	1 31	71 9	781	55	10 145 123
Buckeye, Poughkeepsie, ...	2	330	4 1½	1 23	206	238 5	984	1 43	63 2	893	44 16	13 87 255
Union, Worcester, Mass.,..	3	330	4	1 25	247	232 9	931 7	1 74	81 5	1046	46 38	12 133 129
Gleaner, Poughkeepsie,....	4	330	4 6	1 7	283	295 5	1329 8	2 53	83	1520	32 45	18 50 216
Van Anden, Poughkeepsie,.	5	330	4 5	1 15	295	264	1166	2 36	88 1	1416	37 21	16 9 189
Ohio, Auburn, N. Y., ...	6	330	4	1 15	245	264	1056	1 96	80 8	1176	41 15	14 87 74
Monitor, Hull's, Po'keepsie,	7	330	4 8	1 18	247	250 8	1184	1 90	69 9	1140	36 46	16 50 266
Union, Gales', Po'keepsie,..	8	330	4 6	1 27	245	227 5	1024	1 69	71 8	1013	42 32	14 17 14
Montor, Brooklyn,.....	9	330	4 6	1 50	225	180	810	1 23	63 5	736	54 16	11 25 33
Hubbard's, Troy, ...	10	330	4	1 50	193	180	720	1 05	63 6	631	60 30	9 110 12
Pine's, Troy, ...	11	330	4 6	1 30	193	220	990	1 28	56 3	768	44	13 101 222

[For the Country Gentleman and Cultivator.]

Trial of Mowing Machines at Fishkill.

A trial of mowing machines was held on Tuesday, June 17th, on the farm of Isaac E. Cotheal, Esq., at Fishkill Village, about six miles east of Fishkill Station, on Hudson River railroad, at which eleven manufacturers of as many different machines, were present—also a very large concourse of farmers from the surrounding country. Taken altogether, the scene presented the appearance of a public holiday in field and village, as it really was.

The trial commenced at 10 o'clock, A. M., by drawing and staking off lots of about one-fourth of an acre for each machine, when each in turn cut their allotted portion of the field under the inspection of a local committee of arrangements, as well as that of several hundred farmers, all of whom seemed determined to inspect the work done and the working of the several machines, to their own satisfaction, which they did most thoroughly. The grass was quite light in portions of the field, and all was soft and tender; a portion had been overflowed by recent freshets, and on the whole it was such a test as tried well the machines. Each machine was required to do clean and good work, and which, without exception, was satisfactorily done, in that respect, to all present, there being little difference between the stubble left by all of the machines, which difference seemed to be a little unevenness or irregularity in height of stubble, caused by the cutting works of some two or three machines vibrating up and down from the unevenness of the ground, and their stiff construction, while those which were hinged or jointed, so as to follow the surface of the ground, were free from such objections.

The machines were also thoroughly tested by driving fast and slow, and stopping and starting in the grass, and none failed to perform satisfactorily. Indeed, among all the numerous trials which have come under my observation this one embraced more meritorious and less objectionable machines than on any previous occasion.

These trials, to be understood and useful to those not present, should be managed and reported with the greatest care, so as to give a correct idea of the general character of the construction of each machine, as well as the capacity and price of the same, together with the dynamometrical results, and the last especially in an intelligible manner, which has never been attempted but once or twice to our recollection—once by the New-York State Agricultural Society, at Geneva, 1852, and the United States Agricultural Society, at Syracuse, in 1857. The committee of arrangements at this trial deemed it inexpedient to make any formal report or awards as to superiority, as it would chiefly depend upon the differences of mechanical construction, embracing simplicity, durability, cost, portability, convenience of operation and repairs, and as a majority of them were so nearly balanced in their claims on these points of consideration, it must necessarily involve much labor and time for trials, and more than was then practicable to enable them to do justice to either themselves, the manufacturers or the public, and therefore they left only the dynamometer committee to make a report upon the drafts of the several machines, a copy of which is given below.

In order to appreciate the use or the results of a Dynamometer trial, it is *not sufficient* to report the one column of actual drafts indicated, as is usually done—indeed that would lead astray more than without its use altogether, especially where a spring instrument is used for the purpose, as was the case in this trial. The truthfulness of this will appear when it is considered that the draft indicated by the instrument is but the results of the attending circumstances, combining the working qualities of the mechanism of the machine, the capacity or width of the same, together with the speed of the machine while cutting. In short, it is the result of the two things—first the mechanical perfection and adaptation to the purpose, and secondly the amount of work done. If one machine is moved at a higher velocity than another, it necessarily does more work, and consequently requires more propelling force to keep it in motion, than the same width cut at the slower velocity. Again, a wider cutting machine will do more work than a narrow one, and require more force to keep it in motion; therefore, in reporting upon this portion of a trial, the causes and results are as absolutely requisite as the simple item of draft of the machine, to enable any understanding, or to make any comparison, and with that purpose the annexed table was made by the Dynamometer Committee, consisting of Horace L. Emery of the Albany Agricultural Works, and J. C. Harris, Esq., Cashier of the Mechanics' Bank, Poughkeepsie, N. Y.

For all trials to be mathematically correct, and to show their relative capacity and the force required, each machine should be drawn by one team, or with the same speed—which was not done at the above trial. A machine may move too slow to show its working capacity and draft—while if moved too fast the reverse is the result.

Nos. 1, 2, 3, 4, 5, 8 and 11, are forward cutting machines. Nos. 6, 7, 9 and 10, are back or rear cutting machines.

Horace L. Emery.

Progress of Steam Cultivation in England.—"A gentleman informs us that he saw, a few days ago, from a spot in the neighborhood of Sutton Maddock, in this county, no less than five steam cultivators at work on adjoining farms. Of these, three cultivators were Howard's of Bedford; one Smith's of Woolston, made by Howards; and one Robey's of Lincoln. About six miles away, a sixth steam cultivator (Howard's) was at work. These facts illustrate not only the rapid growth of steam culture, but equally the enterprise of the Salopian farmers."—*Staffordshire Advertiser.*

If the devil was chained to a post, men would be no better than they are; if he couldn't come to them, they would go to him.

[For the Country Gentleman and Cultivator.]

PLEURO-PNEUMONIA EPIZOOTICA.

MESSRS. EDITORS—Having observed in several of your latest numbers of the COUNTRY GENTLEMAN, some statements and inquiries, respecting the above disease, which appears to be still *latent* in the United States, I have much pleasure in submitting the following account of the disease to your readers.

Pleuro-pneumonia in cattle, occurring in the epizootic form, although only known in the United States within the last two or three years,* is now and has been very prevalent in the old world for many years back. In Scotland, and more particularly amongst the dairy stock of its large towns, it has raged with a threatening virulence and fatality scarcely to be credited, except by those daily coming in contact with it. I may as well state at the commencement, that the following remarks and opinions have been gathered and formed, from practice among the dairy cows in the city of Edinboro, to which class of stock they must chiefly apply to, although I would not suppose that there would be any marked difference from the disease, as it occurrs amongst dairy and stock cattle in the rural districts.

Pleuro pneumonia may be defined to be a specific inflammatory affection of the lungs and serous membranes within the thoracic cavity. There are many other definitions varying only from each other in several points of minor importance, but to me, the above one which I have given, has always seemed to answer and meet our present knowledge of the disease—more so, when we consider how much of it is still involved in doubt and obscurity.

Symptoms.—This disease cannot at all times in its earlier stage, be recognized from other affections of the lungs of an inflammatory character, for even its own first appearances are not always marked by the same symptoms, more particularly the type of the accompanying fever. It has been divided into three distinct stages:

1st. The incubative stage.
2d. do. active inflammatory stage.
3d. do. hectic or exhaustive.

This partitioning off of the disease is a matter which however, must be clearly understood, for while I have no doubt but that the two latter stages are characterized by a distinct set of symptoms, during the progress of the disease, I at the same time have never been able, and am of opinion that we cannot detect the exact time when the one stage ends and the other commences. They seem to run into each other without producing any distinct line of demarcation, the symptoms of each often being mixed up in the same case at one and the same time. As for the first or incubative stage, which signifies the period of time elapsing betwixt the first contraction of the disease and its development into the second stage, it is my opinion that it can scarcely ever be recognized—(of course when the active symptoms appear, we may be sure that this stage has preceded them.) We may from many circumstances have our suspicions aroused, that some one or more among a lot is affected, but as far as I am aware there are no sure symptoms which would enable us to come to a direct conclusion. I know at least that this is the case among the dairy stock in Edinboro; even their constant attendants rarely remark anything unusual about them, until the disease is considerably advanced, and I have even in some instances, although happily they are rare, known one animal to be in the last stages, before anything like serious attention was paid to her case, so apt are their owners to attribute diminution of the appetite and milk to something trivial.

Amongst the very earliest of the symptoms, there is a disposition to restlessness, the cow moving from off one fore foot and resting her weight on the other alternately, and the urine diminished in quantity and much higher in color, with a strong disagreeable odor; in unfavorable cases this condition of the urine remains all through the disease. If on this appearance of the urine, some of it be collected and tested by some competent person, and there be found to be an almost or total absence of the chlorides in it, we would be warranted in suspecting that some inflammatory disease of the lungs existed; our attention would at least be drawn to those organs requiring a careful examination. The urine is generally observed to be unusual like, just a few days before the animal begins to shy her food. They lose their appetite generally gradually at first; if they leave off feeding all at once, which they sometimes do, it is an unfavorable symptom, such cases generally running their course rapidly and fatally, and more especially if the same is observed of the *milk*. The udder at an early stage of this disease is very hot, the teats unusually so, and painful. There is a falling off of the yield of milk, but as I have said above, if it is suddenly suspended we have reason to apprehend the worst. Many cows continue to give milk all through the disease, even although they are not eating much, which is a favorable symptom, indicating a good constitution, and a tendency to an early return to health. The animal now appears dull and listless—back slightly arched and head poked out; the hind legs are brought forward beneath the abdomen. Many attach importance to the circumstance of the animals flinching on being pressed along the spine. This, however, is never a symptom of disease amongst dairy cows, as almost any cow in health will do so. The withers are cold; irregular heat of the extremities and ears, the former usually inclined to be cold; the eyes are unusually bright and injected; there is a knuckling of the hind fetlocks frequently observed in the earliest stages, indicating inflammation of the pericardium and pleural membranes within the chest; rumination is suspended; the forelegs are posed, with the toes inwards and elbows outwards, to assist respiration by affording increased chest room. The respiration is short and hurried, averaging at first from 30 to 40 acts per minute; pulse at first hard and quick, averaging 76. Both the respiration and pulse, however, quickly change; the former become heavy and oppressed, and accompanied with a characteristic grunt at each expiration; this sound is also produced by pressing the cow over the intercostal spaces, and it indicates the adhesion of the pleural to the inside of the ribs. The pulse, at first hard and quick, changes to a quick weak pulse, with which change we generally have emaciation—the nostrils are expanded with a muco-purulent discharge issuing from them. Cough is generally present, but it is not always a symptom. At first it is dry and husky—latterly becoming short, hacking, and painful. The dung at first is inclined to be dry and hard, and deficient in quantity; as the disease advances it also changes, and we have diarrhœa present; this at an early stage of the complaint in young cows, and when other symptoms are favorable, is said to be a good symptom; but where it comes on later, from the presence of fermented food in the stomach and the impoverished poisoned state of the blood, it is a very bad symptom.

These, the usual prominent and most important symptoms of pleuro-pneumonia, now gradually become more aggravated as debility sets in. This is well marked in the staggering crouching gait, the extreme emaciation, occasional shivering, and weak tremulous pulse. There is now in most cases gaseous distention of the first stomach, and an apparent bulging out of the thoracic walls, the belly tucked up, skin yellowish and adhering closely to the ribs; the surface of the body is cold, she grinds her teeth, and there is a discharge of saliva from the mouth. Along with the distension of the stomach, we have frequent eructations of gas up the œsophagus. This is often present in the early stages, and is a good diagnostic symptom.

Unlike the horse, cows afflicted with this disease will lie down; but this is accounted for by the difference in

* We think there is no doubt but that occasional instances of Pleuro-pneumonia occurred in this country some years previous to the date mentioned by our correspondent, several of which have been fully described in former volumes of this paper. EDS. CO. GENT.

the anatomy of the parts—the broad flat sternum and a peculiarity on the lower articulation of the ribs, admitting readily of lateral expansion of the chest. If one side is affected, she will lie upon it or towards it, so as to free the other for respiratory purposes; and if both are affected, she will either stand, or lie upon the sternum, and occasionally on each side alternately. Auscultation is in this disease a valuable aid in enabling us to form a correct diagnosis, but it can only be practiced by those conversant with the healthy or unhealthy sounds of the chest, or by the scientific veterinarian—although I know many men, who from long and often dearly bought experience, can at once tell an animal afflicted with this disease, merely from the symptoms I have given, and without at all studying the condition of the lungs.

The duration of pleuro-pneumonia differs much in different cases, according to the age, breed and constitution of the animal and the state of health immediately preceding its contraction. Young cattle stand the disease well, that is from two to five years old; younger and above that again they have not the same capabilities of resisting it. Cows of a medium size and weight, and well proportioned bone and muscle, such as the Ayrshires, stand well, while on the other hand I have generally observed that poor, ill-conditioned cross breeds, and large, heavy bodied cattle sink rapidly. The incubative stage is said to extend to the sixth week; at least those who believe in its contagious or infectious character, do not consider their cattle safe until that time has expired; indeed they often show symptoms before that time, counting from the period when they were known to be in the vicinity of diseased stock, often just about the sixth week, but rarely after it, unless from some other cause not recognizable. The active febrile stage rarely lasts over eight days, as the lungs become early hepatized, typhoid fever sets in, and debility, followed by collapse and death varying from a fortnight to a month from the time the cow is first observed ill. Those cases which last out through all the stages generally begin to recover tone and appetite in about two months, and some not till as late as the tenth or eleventh week.

The duration and comparative fatality of the disease is also influenced to a great extent by the amount and situation of the lung tissue involved; thus if both lungs are attacked at once, the case is very bad. At other times, one lung is affected near the centre of it; this also is bad, but not so much so as the other. Sometimes it attacks the lower edges of the lungs, and proceeds upwards and forwards. Such cases often get better, even although the whole lung be utterly useless for respiratory purposes, provided the opposite lung does not become involved, and I have known many cases get better where even both lungs were affected from the first, their lower and posterior edges being chiefly implicated. After much observation I have come to the conclusion that the danger is increased materially as the disease nears and involves the centre and anterior portions of the lungs, and more especially if the investing membrane of the heart become implicated. Also that the lung on the right side is the one which is most frequently attacked.

In my next I will follow up this subject, treating of its nature, post mortem appearance and treatment &c.

R. RUTHERFORD, V. S.

Edinburgh, Scotland, June, 1862. Late of St. John, N. B.

FOUL IN THE FOOT.

Editors of Country Gentleman—Can you or any of your readers give me any information in regard to the "hoof ail" in cattle. The cows on my farm have been troubled with it for 4 or 5 years. There are two kinds of it, one which breaks above the hoof, and another between the toes. The former is by far the worst form of the disease, and makes the cow lame for a long time, and is not at all effected by remedies which will cure the other. What causes it? The books say, wet pastures. My pastures are not wet at all; and it is only the *new* cows that are subject to it. Cows that have been on the farm for a few years do not have it. Nor have I known a cow to have it twice, or in more than one foot. Now I would like to know what causes it? What are the remedies for it? Whether it is contagious? and why they never have it more than once, or in more than one foot?

It is a serious thing in a dairy. The cows lose flesh, shrink their milk, and do not get over it all summer, and some for a year or two. I would like to find a remedy for it, but still, as the old woman said about her cold, I would not care so much for the "ail," if I only knew what cured it. S. L. F. *Palatine Bridge, N. Y.*

We invite the attention of cattle raisers to the facts here stated, and shall be glad to receive any information founded on experience. We have heard or known of several remedies. We would propose one for trial, that we think might be useful, although we do not know that it has been tried. Wash the part well with a solution of chloride of lime, the strength of which to be according to foulness of the disease. Then wash with Castile soap, and apply a charcoal poultice. The latter may be merely a mixture of fresh charcoal pulverized and mixed with meal. Perhaps this poultice would answer alone, after simple washing. Currier's oil is said to be good, and may answer a good purpose in certain stages of the disease. Tar, or rosin, heated on the surface by passing a thin heated iron against the parts, between the hoofs, has also been recommended, but we think it not equal to the other remedy. Dadd recommends astringents and antiseptics, after an ulcer has formed, as follows: Tincture of matico, 2 ounces; pyroligneous acid, 1 pint; glycerine, 4 ounces. Mix these together and saturate a small piece of sponge, introducing it into the cleft of the foot. Wash the contiguous parts with the mixture, and bandage the hoof to secure the sponge. If there is any heat, keep the bandage moist with cold water.

We cannot throw any additional light on the cause.

[For the Country Gentleman and Cultivator.]

DISEASE AMONG LAMBS.

Messrs. L. Tucker & Son—Noticing an article in the Country Gentleman of June 12th, from W. D. Dickinson, upon disease among lambs, I will give my opinion as to what causes it.

Having lost a number with the disease he describes, I think that high feeding just before the ewes drop their lambs, causes it. I never lost any by this disease before, and have raised every lamb from the same buck and ewes in about the same condition. I account for it in this way: Some ewes, lambing first and in good order, had fine smart lambs—others dropping their lambs a few days after additional feed was given them, had diseased lambs, living a day without getting up, having hound-like ears and large bunches under the throat. The greater share of them died. The diseased lambs were not dropped by the sheep in the highest order, but were from those that were strong and hearty, probably getting more than their proportion of the grain. I am satisfied that the high feed just before lambing caused this disease; still all are liable to be mistaken. C. V. Devendorf.

Mohawk, N. Y.

Very Well Put.—Some one writes both gracefully and forcibly:—"I would be glad to see more parents understand that when they spend money judiciously to improve and adorn the house, and the ground around it, they are in effect paying their children a premium to stay at home, as much as possible, to enjoy it; but that when they spend money unnecessarily in fine clothing and jewelry for their children they are paying them a premium to spend their time away from home—that is, in those places where they can attract the most attention and make the most display."

[For the Country Gentlemen and Cultivator.]

A NEW HORSE-POWER CORN-HUSKER.

Eds. Co. Gent.—I take the liberty to call the attention of farmers, to the fact that on the 24th Dec. last, I obtained letters patent for a machine to *husk corn by horse power.* I am persuaded that any farmer who raises corn, will gladly be excused from the necessity of husking it by hand, particularly when he understands the advantages this machine confers, and let me state some of them. The corn having been cut up as usual into rather small shocks that it may dry or season quickly, after which two or three teams and harvest wagons are taken into the field, and the shocks pitched and loaded on the wagons, and brought to the machine in the barn or wherever the corn and fodder may be wanted. The whole stalks and corn is then fed into the machine in the same way that wheat is into a threshing machine, and is cut into three or four inch pieces, when a blast of wind separates all the leaves, shucks and light stalks from the corn, making the most valuable kind of fodder for any kind of stock, and separating the heavy butts from the corn by sieves, and performing the operation with great rapidity so that with suitable attendance the machine will husk 1000 bushels or more per day. Thus as soon as the corn is dry enough, and before the fodder is weather beaten and almost worthless, it can be secured in the most beautiful condition, and stored in the barn as hay in one third the room it would occupy as stalks. This advantage alone is worth the price of husking. Again, two or three fine days is sufficient to secure a large crop from a host of vermin, and cold and changeable weather, not to say winter, and gives much more time for other fall work—saves a great amount of suffering from rhumatism, colds, &c., the common consequences of husking in bad weather.

We shall endeavor to have the machines manufactured by responsible men in all suitable localities. We feel assured that so soon as they are known, it will be difficult to supply the demand. Is not this good news for the farmers? Joseph Young.

Highland Park, Ill., June 26, 1862.

REPORT FROM A ONE-COW DAIRY.

Eds. Co. Gent.—Several of my neighbors have said to me this spring, "how much butter do you make from your cow?" The answer I have given them I place at your disposal, if you think it adapted to promote the objects of your paper.

Let me premise, however, that my cow—I have but one—is seven years old this spring, of native breed and medium size. She dropped her last calf the 28th of March, having been previously dry about ten weeks. Her calf was sold when ten days old, since which time we have made 86 lbs. of butter.

But I wish to speak more particularly of the last month. During May we made from said cow 50 lbs. of butter, sold one quart of milk a day, and used what was necessary in a family of ten persons, not less than from one quart to three pints daily.

"Oh pshaw!" says some doubting reader, "that's a yarn. I'd like to see the cow that did that. The sight of her would be good for sore eyes."

"I don't know," says another, "my neighbor tells me of a cow he had which made 2½ lbs. of butter a day, one season for a short time, during the flush of pasture. Perhaps she might have made 50 lbs. a month."

"Well, these are only one-cow dairies, any how," says the third, "and the cows were probably slopped all the time." To obviate all difficulties on this score, I will tell you how my cow has been kept. During the fall and early part of winter as long as milked, I fed my cows good ripe pumpkins twice a day. While she was dry she had only hay and cornstalks, what she would eat. After I commenced milking her again, I fed in addition beets, carrots or turnips, about half a bushel a day until my small supply was exhausted, and afterwards gave, for about three weeks, corn and oats ground together, in the proportion of two parts of the latter to one of the former. This lasted till about the sixth of May, since which time she has had only what she gets from good fresh pasture. I allowed her to run in the field as soon as grass started, which was about the 20th of April, as I always prefer to mix grass and hay, for a time, before the one is entirely supplanted by the other.

This is the cow, and this her keeping, and before long I expect to hear of some others which leave her entirely in the shade. But I can't help it. Let the record of the best cows be made. One object to be gained is, to make those farmers discontented with their stock, who think a hundred and twenty pounds of butter a season, a pretty good yield per cow. We have too many such cows around, and too many farmers contented to have it so. It ought not to be. S. R. *Clinton, June* 4, 1862.

AMERICAN POMOLOGICAL SOCIETY.

In conformity with a resolution adopted at the last meeting of this National Association, the undersigned, President thereof, gives notice that its Ninth Session will commence in the Hall of the Massachusetts Horticultura Society, corner of Washington and West streets, Boston, Massachusetts, on Wednesday, Sept. 17th, 1862, at 12 o'clock, noon, and will continue for several days. All Horticultural, Pomological, Agricultural and other kindred institutions in the United States and the British Provinces, are invited to send delegations as large as they may deem expedient, and all other persons interested in the cultivation of fruits are invited to be present, and to take seats in the Convention.

The present season promises to be the most propitious for fruit that has occurred for many years, and it is anticipated that the coming session, which takes place at the same time with the Annual Exhibition of the Massachusetts Horticultural Society, may be made one of the most interesting which has ever been held by the Society. All the States and Territories are urgently invited to be present, by delegation, at this meeting, that the amicable and social relations which have heretofore existed between the members of the Society may be fostered and perpetuated, and the result of its deliberations, so beneficial to the country at large, be generally and widely diffused.

Among the prominent subjects to be submitted at this session will be the Report of the Special Committee appointed to revise the Society's Catalogue of Fruits, and thus to ascertain what varieties are adapted to the different sections and districts of our country. The various State and Local Committees who have not already made their reports on the revision are, therefore, solicited to forward them, without further delay, to P. Barry, Esq., of Rochester, N. Y., Chairman of said Committee. And it is further requested, that all other reports, which are by the By-Laws made returnable to the General Chairman of the Fruit Committee, now deceased, may also be addressed to Mr. Barry as aforesaid.

Members and delegates are requested to contribute specimens of the fruits best adapted to their respective districts—to furnish descriptions of the same, their mode of cultivation, and to communicate whatever may aid in promoting the objects of the Society and the science of American Pomology.

Each contributor is requested to come prepared with a complete list of his collection, and to present the same with his fruits, that a report of all the varieties entered may be submitted to the meeting as soon as practicable.

All persons desirous of becoming members can remit the admission fee to Thomas P. James, Esq., Treasurer, Philadelphia, or the President, at Boston, who will furnish them with the Transactions of the Society. Life Membership, Ten Dollars; Biennial, Two Dollars.

Packages of Fruits may be addressed as follows: "American Pomological Society, care of Mass. Hort. Society, Boston, Mass."

MARSHALL P. WILDER, President.

[For the Country Gentleman and Cultivator.]

CANNING FRUITS AND VEGETABLES.

WARNER, N. H., JUNE 30, 1862.

MESSRS. EDITORS—Last week being on a visit at the Shakers in Canterbury, I had the pleasure of testing some of their preserved fruit, and finding it very nice and fresh, I applied to a relative of mine, connected with the Society, for written directions for preparing and preserving fruits, vegetables, &c., in the manner in which they had been so successful. This, Miss HASTINGS cheerfully assented to, but somewhat reluctantly consented to the publication of her letter in the COUNTRY GENTLEMAN. But as it is one of their standing rules "to do good and communicate," she finally yielded to my wish in this matter; and it is with great pleasure I forward the letter for publication in the columns of your paper, for which I have no doubt, Miss H. will receive the heartfelt thanks of hundreds of her sex.

I hardly need call your attention to the beautiful writing, and the clear and concise language in which she has given directions for the several processes necessary for the successful preservation of the various fruits, &c.

It is necessary that the bottles, cans, &c., should be taken from boiling water, and immediately filled. Glass bottles should first be placed in cold water, and gradually brought to the boiling point, as there would be danger of their cracking, if at once placed in boiling water. L. BARTLETT.

SHAKER VILLAGE, N. H., June 26, 1862.

ESTEEMED COUSIN LEVI—Agreeably to your desire, I write to inform you of the manner in which we have preserved fruit and vegetables for several years past, with a good degree of success.

First. When the fruit is well ripened it should be gathered and dressed while fresh, carefully avoiding all that is imperfect, soft or decaying. Apples, pears, &c., should be quartered and cooked in water as for immediate use, with care that the quarters are kept as whole as is consistent. The same should be regarded with other fruit. When the fruit is nearly cooked, if you wish to sweeten, add sugar or molasses to the taste, and let boil till thoroughly scalded together, then put into the vessel boiling hot.

We use tin cans, of sizes from a pint to a gallon, stone jars of various dimensions, and glass jars made on purpose for preserving fruit. Glass bottles of any description answer a good purpose for small berries, if completely filled and hermetically sealed; but we prefer vessels with an aperture or mouth sufficiently large, at least, to admit a tablespoon.

The cans, jars or bottles should be perfectly clean and sweet, and before they are used should be filled with boiling water, which should be emptied immediately before being filled with sauce. Care should be used to have the vessel completely filled with fruit to prevent the admission of atmospheric air, which is liable to cause fermentation.

The top of the vessel should be wiped perfectly dry before sealing, that the wax may adhere to every part of the groove and cover. If glass bottles, stone or earthern jugs are used, the corks should be driven into the necks thereof even with the mouth, and tightly sealed to exclude every particle of air.

The sealing wax is made of rosin 4 oz., to ¼ oz. of beef or mutton tallow melted together, and after the cover is placed on to the fruit-can as close as it can be, turned into grooves made for the purpose, when hot, but not boiling. Let stand till cool, then place the vessels in a cellar or cool room where, if undisturbed, the fruit may remain for years in a state of preservation, if not exposed to frost.

N. B. When the can or bottle is open for use, there is frequently, even with the best preserved fruit, a scum or coat of mold on the surface, which should be carefully removed with a spoon, or if the mouth of the vessel is too small to insert a spoon, use a cork screw or wire hooked at one end, before the fruit is emptied out. Care should be taken to remove every particle, else it will hurt the flavor of the sauce. Be careful also not to let the crumbs of the sealing wax be mixed with the sauce, which would cause a bad taste.

We preserve in this way, hundreds of gallons of the various fruit and berries that grow on our soil, for our own consumption and for the market. Apples, pears, quinces, currants, gooseberries, raspberries, blackberries, blueberries, strawberries, grapes, tomatoes and garden rhubarb or pieplant. The foregoing varieties may be equally well preserved with or without sweetening, as best suits the taste and convenience. We have tried to preserve green sweet corn, green beans, peas, &c., but without success. Green currants may be easily preserved.

Although tin cans are considerably used with us, yet we are careful not to put into them the most acid fruits, such as very sour apples, gooseberries, currants, and the like, as the acid is liable to corrode the tin and injure the flavor of the fruit. Glass we consider preferable to any other material in which to preserve such fruits.

Cranberries can be preserved in perfection, without cooking, in large quantities, by spreading them on a frame covered with canvass, and placed in a cool room excluded from the light of the sun; and although they may shrink one-half their bigness, they will resume nearly their original size by soaking them a few hours in cold water before they are cooked. A few quarts, or a less quantity, can be kept equally well in a bag made of thin white cotton or linen cloth, and hung in a cool room as above. This fruit should be carefully looked over, and all the dirt, leaves, or soft and decaying berries removed before they are put into a bag or elsewhere for safe-keeping.

If you desire a very nice article, and white, of preserved apples or pears, stew the fruit in small quantities, in tin, sweeten with white crushed sugar, and put into glass jars as quick as possible.

If the foregoing directions prove of any benefit to your family or friends, the communication thereof will give me pleasure. Respectfully yours, HARRIET HASTINGS.

[For the Country Gentleman and Cultivator.]

The Best Way to Dispose of Bones.

MESSRS. EDITORS—After reading the various communications which have been published in the Co. GENT. on the different methods of disposing of bones which accumulate about the premises of the farmer, and converting them into an available manure for agricultural purposes, I will inform your readers how I dispose of my stock of bones. All the bones which are obtained from the meats used in the family, are saved and carried to the hen house, and deposited there to be used when wanted. Near the bones is placed a flat stone large enough to break them on. At the commencement of winter I begin to break them up, and dispose of them in the following manner:—Laying the bones on the stone, with an old axe I pound them up fine enough for a hen to eat, and then let my hens *eat them*. In this way of disposing of bones it requires no sulphuric acid, potash or other costly drugs, which are somewhat dangerous for persons to use who are not acquainted with their nature. Neither does it require any fixtures to prepare them in, nor time and labor to manufacture the materials into a compost. The hens furnish the fixtures, time and labor, and manufacture the bones into as good manure as any that is made on the farm.

At the present time I do not propose to discuss the comparative merits of the various preparations of bones that are used for manure, neither am I prepared to decide whether bone manure or hen manure is the most valuable for agricultural purposes; but I am well satisfied as to the value of hen manure for any use that I have made of it. I believe it is an established axiom in agriculture, that the richer the food on which an animal is fed, the richer and more valuable will be the manure. As fresh bones contain much animal matter, as well as phosphates, the manure of hens fed with bones must be much more valuable than when kept in the ordinary way.

But the most profit which I obtain from bones used in this way, is the extra quantity of eggs which my hens produce when fed with the bones. I have found that it is necessary to give my hens a generous supply of animal food, as well as that containing phosphates, if I wanted them to lay well, and

other things being equal, the supply of eggs has always been governed by the supply of these articles of food.

As my hens have the run of the farm when the ground is bare, they get a supply of animal and vegetable food, but in the winter season they must be furnished with these things from other sources. I think there is no one thing that furnishes a larger proportion of egg-producing food than fresh bones, as there is always more or less animal substance adhering to them. By making a little calculation with my bones and other animal offal, I give them this food several times a week during the season that they cannot get to the ground. Since I commenced feeding my hens in this way, the average weekly production of eggs has been full as large through the winter, as during any other part of the year. The price at which eggs sell for in this vicinty, is generally one-third more in the winter than in the summer, so that when the eggs are sold it makes a considerable difference to what it does not to have any eggs through the winter, as is the case with many who keep hens, and to sell what eggs are disposed of in warm weather, at the low prices which generally rule at such times. The past winter I kept fifteen hens. Early in the spring, a neighbor, on being told that my hens had then laid nearly fifty dozen of eggs since December last, said that "his hens had not laid an egg then, that he had not commenced feeding them yet to make them lay," their principal food previous to this being boiled potatoes and oats—thus showing conclusively in this instance, that hens must have the right kind of care and food to make the keeping of them pay well.

C. T. ALVORD.

THE AGRICULTURAL COLLLGE ACT.

An Act donating Public Lands to the several States and Territories which may provide Colleges for the benefit of Agriculture and the Mechanic Arts.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress Assembled, That there be granted to the several States, for the purposes hereinafter mentioned, an amount of public land, to be apportioned to each State, in quantity equal to 30,000 acres for each Senator and Representative in Congress to which the States are respectively entitled by the apportionment under the Census of 1860: *Provided*, That no Mineral Lands shall be selected or purchased under the provisions of this act.

SEC. 2. *And be it further enacted*, That the land aforesaid after being surveyed, shall be apportioned to the several States in sections or subdivisions of sections not less than one quarter of a section; and whenever there are public lands in a State subject to sale at private entry at one dollar and twenty-five cents per acre, the quantity to which said State shall be entitled, shall be selected from such lands within the limits of such State, and the Secretary of the Interior is hereby directed to issue to each of the States in which there is not the quantity of public lands subject to sale at private entry at one dollar and twenty-five cents per acre, to which said State may be entitled under the provisions of this act, land scrip to the amount in acres for the deficiency of its distributive share; said scrip to be sold by said State, and the proceeds thereof applied to the uses and purposes prescribed in this act, and for no other use or purpose whatsoever: *Provided*, That in no case shall any State to which land scrip may thus be issued be allowed to locate the same within the limits of any other State, or of any Territory of the United States, but their assignees may thus locate said land scrip upon any of the unappropriated lands of the United States subject to sale at private entry at one dollar and twenty-five cents per acre. *And, provided further*, That not more than one million acres shall be located by such assignees in any one of the States. *And, provided further*, That no such locations shall be made before one year from the passage of this act.

SEC. 3. *And be it further enacted*, That all the expenses of management and superintendence and taxes from date of selection of said lands, previous to their sale, and all expenses incurred in the management and disbursement of the moneys which may be received therefrom, shall be paid by the States to which they may belong out of the treasury of said States, so that the entire proceeds of the sale of said lands shall be applied, without any diminution whateyer, to the purposes hereinafter mentioned.

SEC. 4. *And be it further enacted*, That all moneys derived from the sale of lands aforesaid by the States to which the lands are apportioned, and from the sales of land scrip hereinberore provided for, shall be invested in stocks of the United States, or of the States, or some other safe stocks, yielding not less than five per centum upon the par value of said stocks; and that the money so invested shall constitute a perpetual fund, the capital of which shall remain forever undiminished, (except so far as may be provided in section fifth of this act,)and the interest of which shall be inviolably appropriated, by each State which may take and claim the benefit of this act, to the endowment, support, and maintenance of at least one college where the leading objec tshall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to Agriculture and the Mechanic Arts, in such manner as the legislature of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.

SEC. 5. *And be it further enacted*, That the grant of land and land scrip hereby authorized shall be made on the following conditions, to which, as well as to the provisions hereinbefore contained, the previous assent of the several States shall be signified by legislative acts:

First, If any portion of the fund invested, as provided by the foregoing section, or any portion of the interest thereon, shall, by any action or contingency, be diminished or lost, it shall be replaced by the State to which it belongs, so that the capital of the fund shall remain forever undiminished; and the annual interest shall be regularly applied without diminution to the purposes mentioned in the fourth section of this act, except that a sum, not exceeding 10 per centum upon the amount received by any State under the provision of this act, may be expended for the purchase of lands for sites or experimental farms, whenever authorized by the respective Legislatures of said States.

Second, No portion of said fund, nor the interest thereon, shall be applied, directly or indirectly, under any pretence whatever, to the purchase, erection, preservation or repair of any building or buildings.

Third, Any State which may take and claim the benefit of the provisions of this act shall provide within five years, at least not less than one college, as described in the fourth section of this act, or the grant to such State shall cease; and said State shall be bound to pay the United States the amount received of lands previously sold, and that the title to purchase under the State shall be valid.

Fourth, An annual report shall be made regarding the progress of each college, recording any improvements and experiments made, with their cost and results, and such other matters, including State industrial and economical statistics, as may be supposed useful; one copy of which shall be transmitted by mail free, by each, to all the other colleges which may be endowed under the provisions of this act, and also one copy to the Secretary of the Interior.

Fifth, When lands shall be selected from those which have been raised to double the minimum price, in consequence of railroad grants, they shall be computed to the States at *the maximum price, and the number of acres proportionally diminished.*

Sixth, No State, while in a condition of rebellion or insurrection against the Government of the United States, shall be entitled to the benefit of this act.

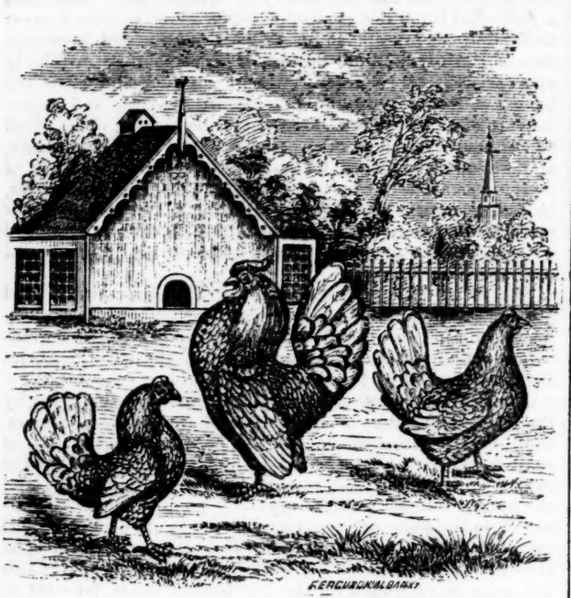
Seventh, No State shall be entitled to the benefits of this act unless it shall express its acceptance thereof by its Legislature within two years from the date of its approval by the President.

SEC. 6. *And be it further enacted*, That land scrip issued under the provisions of this act, shall not be subject to location until after the first day of January, 1863.

SEC. 7. *And be it further enacted*, That the land officers shall receive the same fees for locating land scrip issued under the provisions of this act as is now allowed for the location of military bounty land warrants under existing laws: *Provided*, Their maximum compensation shall not be thereby increased.

SEC. 8. *And be it further enacted*, That the Governors of the several States to which scrip shall be issued under this act shall be required to report annually to Congress all sales made of such scrip until the whole shall be disposed of, the amount received for the same, and what appropriation has been made of the proceeds.

☞ We are pleased to see that our young friend, Mr. S. L. BOARDMAN of Brookdale Farm, has been associated with our old friend Dr. HOLMES, in the editorship of the *Maine Farmer*. We congratulate the Doctor on obtaining so capable and industrious an assistant, and Mr. B. that he is enabled to enter upon his editorial career under so competent a mentor.



[For the Country Gentleman and Cultivator.]

THE SEBRIGHT BANTAM.

Of all the Bantam family, the Sebright is perhaps the most popular. There are certainly very few, if there are any varieties of poultry, which for beauty and general appearance or conformation, are equal to the Sebright. Though extremely small in size, it is elegantly formed and remarkable for its grotesque figure and bold carriage, and must be considered more as an object of curiosty than utility, and of course must expect to be received with no particular favor in this country, except as "fancy fowls." The Cochin and Brahma for weight and quietness—the Sebright for haughty carriage and diminutive beauty. The attitude of the cock is indeed singularly proud, and we have often seen one of them bear himself so haughtily, that his head, thrown back as if in derision, has nearly touched the two upper feathers of his tail.

The gait of the Sebright cock is the very extreme of self-esteem, vanity and self-assurance, and when silently walking with his train on a lawn, in search of insects on the grass, or hurrying with the most agile and noisy impatience from the too near advance of your favorite dog, to some friendly covert of evergreens, it is impossible to conceive a more lovely ornament to the villa grounds, or one that claims more general admiration and astonishment from those who thus see them for the first time. The feet are raised in walking much more than in any other of the Bantams, and planted with the greatest deliberation and precision. When alarmed their deportment is most striking; the wings droop to the groond, not listlessly, but as if determined to make the most of their tiny proportions, while the head is thrown back and the tail is raised so that they all but meet.

The plumage of the Golden Sebright is of a rich orange or gold color; almost every feather is edged with a border of darker hue, approaching to black. The accuracy of marking is a very important point. Flecks of black on the ground color are great faults. The neat, slim and featherless legs are of a dull lead color; his ample tail, from which the sickle feathers are absent, is carried well over his back, nearly meeting his head, not unlike a fantail pigeon. His size is quite diminutive and his carriage saucy; his wings jauntily droop until they nearly brush the ground. He is as upright as a drill-sergeant, or more so, for he appears now and then as if he would fall backward, like a horse that over rears himself. Such are the characteristics of the true Sebright Bantam, which our artist has so faithfully represented in the portraits at the head of this article.

Much mystery has been attached to the process by which these birds were brought to their present state of perfection. Whether originally bred from selected specimens of the spangled birds—in most of which, as in the Spangled Hamburgs, certain feathers—those on the wing-coverts especially—are usually found of a laced character—or whether we should be content to place them as one among a numerous distinct branch into which this family have been divided, remains a matter of discussion, and one too, which at this date is not likely to be satisfactorily determined.

It is believed, and there is little doubt but this is a made breed, having been produced by Sir John Sebright, by careful breeding for generations. "The last object," says a writer in the *Poultry Chronicle*, "Sir John arrived at, was to improve the Bantam to a clear erect carriage. To effect this he obtained a buff-colored bantam hen; she was very small indeed, with clear, slate colored legs; at the same time he purchased a cockerel, rather inclining to red in color, destitute of sickle feathers, with a hen-like hackle, and also a small hen resembling a Golden Hamburg. After this, by drafting for five or six years, he gained the very pencilled feather he so anxiously sought after, and by in-and-in breeding for twenty years."

The Bantams are peculiarly *fancy* fowls; they have been accused of not being a useful kind, as, of course, there is little to eat on a fowl which when full grown should weigh, the cock one pound, the hen less, the eggs being small in proportion. But how many hundreds of amateurs there are whose opportunities give them no room for full sized fowls, but who, delighting in living things, can indulge their fancy and beguile many hours, which would otherwise prove weary ones, by keeping a few bantams. Their eggs, though small, are delicious.

Some time in March last, as we were strolling about the city, chance led us into a bird depot, where we noticed several cages of fancy fowls just imported from Holland, among which a trio of Bantams attracted our attention. The proprietor called them Silver Bantams, but they differed in several particulars from any which we have ever seen. They were the least in size, and the most beautiful birds of the whole family, and immediately reminded us of their namesake, the Silver Spangled Hamburgh, both in respect to the color and form of the marking, as also the shape of their combs. Many persons indeed would suggest the probability of their being the offspring of crosses between the above birds, being the very counterpart of the Silver Spangled Hamburg, with the exception of size and the sickle tail

This trio of Bantams, which our figure so well represents, were sold together with several othar varieties of fancy fowls, which we may notice hereafter, and taken to the poultry establishment lately erected by M. D'Aubigny, at Fordham where he intends breeding all the different varieties in their purity. He has separate accommodations for sixteen to eighteen different breeds. Our earnest hope is that he may be successful in the enterprise, and be rewarded according to his deserts. C. N. Bement. *New-York, June*, 1862.

[For the Country Gentleman and Cultivator.]

A NEW WAY TO COOK BEEF.

When you get hold of a good thing it is well "to communicate." Having learned this method of cooking beef within a few years, we find it so much the best way that no week elapses without a meal of beef steamed upon our table.

To steam beef, procure a cast iron pot of large dimensions, having at the bottom a shoulder, which is found in most large iron pots, at the point where the diameter is diminished to fit the hole in the stove. Across this hole you place some pieces of shingle; then fill up the pot to the shingles with water, adding a few pieces of lemon peel or a little mace if you please; place your meat upon the shingles; cover up tight with a fitted tin cover; place over a hot fire, and wait till done. You must be careful to add water occasionally, for if it should all boil away, of course the gravy would be burnt, and the flavor of the meat injured. When finished the bottom of the pot contains a large quantity of most excellent gravy, which, of course, must be thickened and seasoned.

A rump of beef, or a shoulder, forms an excellent piece to operate upon. Mutton is also fine. Try it.

Utica, N. Y. W.

THE DAISY AND POLYANTHUS.

Of early flowering plants, few are more beautiful than the Daisy and Polyanthus. The fine double varieties of these plants are very desirable, and should have a place in every garden. They require rich aud moist soil, and a shaded, cool situation. The Daisy is not sufficiently hardy to withstand the cold of our winters without protection. The best method of keeping them is by means of a frame. They are readily multiplied by division of the roots.

PRIMULA ELATIOR OR POLYANTHUS.

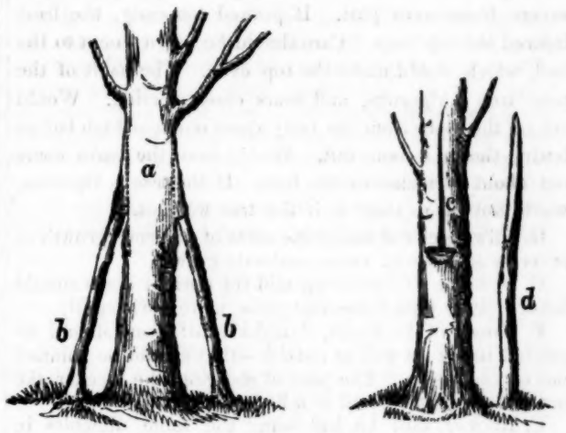
The Polyanthus is more hardy, and most of the varieties will stand any ordinary winter without protection. The variety is great, those produced from seed being very diverse in their markings. Of the the full double varieties, there are white, yellow, and purple; of the single sorts, there are various colors, but the predominating one is brown, or brownish-crimson, with yellow eye and border. There are some sorts, semi-double, with small flowers, but they are not as pretty as the single or full double varieties. The time of floweriug is in May or earlier, and the bloom is over as soon as the weather becomes pretty hot. They may then be removed and their place supplied with bedding plants from the green-house or with annuals.

The engraving gives a very good idea of the appearance of the single flowering sorts, though most of them bear their flowers on taller stems than that represented in the cut. G. B. H.

Dwarf Pears Changed to Standards.

It often happens that dwarf pears lose their vigor after bearing a few years, and many kinds live but a short time under the best management. So long, however, as they bear much earlier than standards, their cultivation will be continued in spite of this formidable disadvantage. To combine the advantages of both,—by changing the dwarf, as soon as its energies flag, to a standard, and thus secure its growth and productiveness for a century,—has long been a desideratum. To accomplish this purpose, some pomologists have recommended the practice of planting the dwarf so deep that the place of union between the pear and quince may be some inches below the surface of the earth, that the pear may throw out roots for itself. This is however attended with objections. If the pear does not root while the tree is yet young and thrifty, and when it is most desirable to retain the character of the dwarf, it will not often root at all. Besides, but few roots are thus thrown out, and frequently on one side of the stem, so that the tree is unequally supported, and it often lops over or becomes prostrate.

A mode of effecting the desired object, was described some years ago by J. M. EARLE of Worcester, and has since been adopted very successfully by JAMES OLIVER of Lynn, who recently described to us particularly the mode of performing the operation.



a, trunk of dwarf pear tree—b, b, pear stocks inserted into it, for new bottom—c, cut for receiving the pear stock—d, pear stock, cut sloping before insertion.

He allows the dwarfs to grow and bear, until symptoms of decline make their appearance. Two thrifty pear seedlings or stocks are then planted on each side of the trunk, and as near to it as practicable,—within an inch or two if possible. No harm will be done if some of the quince roots should happen to be cut in setting them. They grow one year. Then, the next spring, as soon as the bark will peel, they are inarched into the pear tree. A new bottom is thus formed for the pear tree, and new vigor is soon imparted to it. A substantial two-legged tree is thus manufactured, and the quince ceases to perform its office. The mode of attaching the stocks to the tree is as follows:—Make a slit in the bark of the dwarf pear tree a few inches above ground, and across the lower end of the slit, make a cross cut, so as to form an inverted ⊥. If the tree is large, make a notch instead of the cut, sloping downwards, so as the better to admit the stock. Then bend the stock against this notch or cross cut, and mark it at that point. Then with a knife set with the edge upwards at this mark, cut the stock off with a slope two or three inches long. It is then easily bent and inserted into the slit. It may be covered with grafting wax, but grafting clay is much better for this purpose. This is made of clay or clay-loam one part, and horse manure two parts, well mixed together—the addition of a little hair is an improvement. Cow manure is entirely unfit, being too compact with the clay, and not possessing the fibrous character of the other.

Dwarf pears that had nearly ceased growing, have been restored to vigor in this way.

DIOSCOREA BATATAS.—Messrs. Overman & Mann of Bloomington, Ill., report that "three years since they set out three thousand cuttings of this plant, nearly all of which grew. They are nearly hardy, killing back but little. At the end of two years they are dug, when the roots are of fair size, but of little value for food."

Fruit Growers' Society of Western New-York.

[Reported for the Country Gentleman.]

The Fruit Growers' Society of Western New-York met at the Court House in Rochester, at 11 A. M., on the 25th of June—the President, H. T. Brooks, in the chair.

Pruning Dwarf and Standard Pear Trees.

The following question was discussed—What is the best form of pruning the Dwarf Pear Tree? and what the best for the Standard, and the best season for doing it?

W. P. Townsend of Lockport, said he was decidedly in favor of the pyramidal form, cutting pretty severely, and leaving the lower branches the longest. Pruned after the severe frosts were past. If pruned too early, the frost injured the top buds. Care should be taken to cut to the bud, which would make the top even. The habit of the pear tree is vigorous, and bears close pruning. Would cut off the limbs from the body about one foot high before letting the tops come out. Would have the limbs come out about 18 inches or two feet. If the tree is vigorous, would not cut so short as if the tree was not.

G. Ellwanger did not prune sorts of vigorous growth as severely as those of more moderate growth.

C. Downing of Newburgh said the upright kinds should branch lower than those that grow more horizontally.

E. Moody of Lockport, thought dwarf pears should be pruned *inside* as well as *outside*—they should be thinned out on the inside. The plan of shearing like a cedar, the outside of the tree, will in a little time spoil the tree.

C. Hooker said he had found the same difficulty in pruning—the inside of the tree was growing too thick, and he found it necessary to thin the inside.

H. N. Langworthy thought it was evident that the pear cultivators were on the extreme in pruning so close. He thought it necessary to give the tree a little more room—not to prune so close—would cut the inside out of standard pears—would take out the leader. The trees are disposed to make a leader, but by cutting it out, it makes the tree wider and better shaped.

Mr. Lee of Newark, cut back in August in order to get fruit spurs, and so fruit the next year.

Pinching Pear Trees.

G. Ellwanger—The first advantage of pinching is in checking the growth, and thus assisting the formation of fruit spurs. It also assists the job of pruning in the winter. Generally performs the pinching in June, when the young shoots are about six inches long. He only pinches those shoots which are intended to bear fruit the next year. He never pinches the leading shoots. The object of pinching is to make fruit-buds, and also to thin out the inside of the tree.

Use of Ashes, Lime, and Charcoal in Orchards.

The President thought charcoal a very valuable material to use as an absorbent of manure. His apple trees, planted on old charcoal-beds, are very much improved indeed, and were probably twice as large as the others in the neighborhood.

Mr. Harris of Rochester, asked if there was not considerable ashes in the soil, and was answered in the affirmative.

Dr. Beadle had used pure charcoal as a manure, and could not see that it produced any effect. Thought it its principal benefit was owing to the burnt earth, which was always found in old charcoal-beds, and which was found in England to be very valuable for fruit trees.

Dr. Sylvester of Lyons, had found considerable benefit from it. Thought muck a material very similar to charcoal, producing very similar effects.

Fire Blight on Pear Trees.

The President had thought that the blight of pear trees might be owing to the use of animal manure.

L. B. Langworthy was perfectly dumb-founded as to the cause of the fire blight in the pear. Thought the use of animal manure was perhaps the cause. He thought it was an overstock of sap, which could not be elaborated by the leaves—it was in fact *plethora*. Charcoal he considered to be of very little or no value; but ashes he considered to be extremely valuable—never saw any situation in the world in which it was not valuable—good for everything.

B. Fish had in one instance a tree which showed considerable inclination to crack, but upon putting on a large application of soap suds and ashes it recovered from the disease, and has not cracked until this year.

S. W. Holmes of Syracuse—A German gardener in his city raised a very excessive quantity of fruit in his own garden by the free use of ashes in the ground. He also had noticed in his own grounds a very decided benefit in regard to the quality and early maturity of the fruit, and caused probably by the ashes.

Application of Manure.

Question.—The application of manure to the surface. At what season is the application most beneficial, and in what condition should the manure be when applied?

E. Moody, Lockport, has always been opposed to surface manuring, as being too wasteful. If it was to be used at all, he would use it in the spring early. It would leach some, and would then serve as a mulch to the plant.

E. W. Sylvester of Lyons, thought it not best to apply fresh manure to the surface as it would lose all its ammonia, but would recommend composting by putting muck and manure in alternate layers until the pile is five or six feet high. This remains until fall, and then is fit for use. It is found to be well rotted, and fit for any use. This compost he used as a surface mulching, forking or dragging it in in the spring.

C. Downing would recommend putting composted manure on the trees in the fall, and fork it up in the spring.

H. N. Langworthy has been using liquid manure made from night soil, and found remarkable effects from it—greater effect in fact than he had ever seen before from any other manure. Old bearing pear trees had made a growth of five feet in some instances, and in all had grown remarkably.

The Currant Worm.

Question.—The Currant Worm? What are its habits? What are the most effectual means for its destruction?

Geo. Ellwanger—During the past month we have used slack lime every day or every other day, and have succeeded perfectly, destroying all of them—covering the leaves and fruit with the fine dust. It does no harm to the foliage or fruit. He considers it a complete remedy.

H. N. Langworthy has used a solution of soft soap and water, *very strong*—had had perfect success—killed the worms without fail—must be put on often.

Dr. Beadle had found the use of air slacked lime a perfect success in killing the worms.

Dr. Sylvester had used one pound of whale oil soap and four gallons of water, and succeeded entirely in saving the fruit and killing the worms—had pursued the same course this year, so far with perfect success. He applied it every other day.

The White Grub.

Question.—The White Grub? What are its habits? What are the most effectual means for its destruction?

L. B. Langworthy—The white grub is the larva of the May-bug. It is four years in completing its growth—is most destructive in its third year. He thinks it impossible to destroy it, except to dig it up and kill it. It is particularly destructive to strawberries.

Geo. Ellwanger had *always* found white grubs to be plenty in grounds manured by night soil—would never use it until composted three or four years.

E. W. Herendeen had tried clear salt to kill the grubs, without success.

Salt for Quince Stocks.

Question.—Has the use of Salt been found to be beneficial to Quince Stocks? or to Plum Trees?

Geo. Ellwanger had applied salt to pear and plum trees, and found it produced a wonderful effect—would apply six or eight barrels to the acre—would use as much as a

peck for a large tree, as large as a large apple tree. Uses it in February. Puts enough on to make the ground white.

C. Downing thought salt good for all vegetation, but it would do no good to kill insects.

W. P. Townsend had used salt for many years with the best results, for quince trees.

Dr. Sylvester said there was a limit to the use of salt—it must not be used in excessive quantities.

New Strawberries.

Question.—What new varieties of the Strawberry have been found to promise well in the experience of this Society?

Dr. Sylvester thought Frost's Filmore a valuable new sort. He thought the crop a full average of other sorts. Cutter's Seedling he considered a valuable sort, also. In Boston it was highly prized. The Austin Seedling too soft for carrying well.

The Society then adjourned to meet at Rochester on the first day of the State Fair of the New York State Agricultural Society.

[For the Country Gentleman and Cultivator.]

THE HISTORY OF ONE SHEEP.

MESSRS. EDITORS—I read in the N. Y. Argus under date of May 31st, that it was not profitable to save twin lambs for breeders, stating that the sheep were smaller and the growth of wool was less.

Now I will give you the history of one sheep which is kept upon my father's farm, and owned by my youngest brother, James T. Beal, a lad of some thirteen summers.

The sheep I am speaking about, is from a small fine wool ewe, and a splendid buck, (cross between the Cotswold and South-Down,) from the yard of Col. Joseph Juliand of Bainbridge. She was dropped Feb. 18th, 1856. The old ewe would not own her, so we were obliged to raise her as a cosset.

She was a very small lamb, for when she was a week old she could not have been larger than a large rat. But she grew finely, and now is much larger than her dam, taking after the buck, I presume, for size. She did not have any lambs until she was three years old. The fall before she was three years old, he got a large coarse-wool buck and put in with her, but she would have nothing to do with him; but he was not to be out-witted by her this time. He got a rope, put it round her, and tied her to the nearest fence-post. The result of this trouble was a nice pair of lambs—one a buck, the other a ewe. When the lambs were a year old, he had them sheared. The old ewe never sheared less than six pounds. One of the lambs sheared 8½, and the other 7¼ lbs. When the lambs were a year old, the old ewe had another pair of lambs, both were ewes.

When his first pair of lambs were two years old, he sheared the five, receiving on an average per head about seven pounds of wool of a good quality. The old ewe had another pair of ewes—also his first ewe lamb had one, and his yearling ewes had each of them one, making five lambs from four sheep, which gave him nine sheep, which he wintered. He would have had ten sheep, but last fall we killed the male sheep of his first pair. His meat weighed 102 lbs., besides the pelt and tallow.

This spring the old ewe had another fine pair of lambs—one a buck, the other a ewe, making eight lambs that she has had in three years. His ewe that is three years old, had this spring a nice pair of ewe lambs—also his ewes that are two years old, had each of them two lambs, making four pair of twin lambs this spring. Also, two of his yearling ewes have had a lamb, making an aggregate of 20 sheep in three years from one ewe. He had his sheep sheared the 24th of May, and his flock averaged about 6¾ lbs. per head.

My brother takes the whole care of them, both summer and winter. He salts them regularly once a week, sees that they have good clear water constantly, and has them sheared according to his own notion. He has his lambs come about the last of April or the first of May, so that they can have plenty of grass, with the milk from the dam, to make them grow rapidly. He lost one last winter when about half grown. It was one of his yearling ewes that lost it. He noticed in the morning when he fed them, that she was sick, and in the afternoon he took the lamb from her, when she got well without further trouble.

I write this to let others know what he is doing, and let them judge whether he is a shepherd or not. I would like to hear from others, who make a business of raising sheep, upon this subject, whether it is profitable to save twin lambs or not.

Let the boys of our country try their hands at raising fine stock, (for many times they will excel their fathers,) and then they will have something to encourage them to follow the most independent calling upon earth. Give the boys a chance to show what they can do on the farm, and more boys will take pride in staying at home and tilling their father's farms. The reason why so many young men at the present day are dissatisfied with farming, is because they do not have a chance to experiment for themselves, and they leave their homes, cursing the farm and every thing connected with it.

Boys in this "enlightened day" think they know something, and sure enough they do. All they want is a chance to show what they can do in the line of raising fine stock. Let those men who are able, give their sons some stock to raise and a piece of ground to till, and try and educate them in this important branch of business, for in a few short years the boys of the present generation will have to occupy their fathers' places if they are occupied at all.

Let all young men strive for themselves, remembering that they have it in their power to be somebody or not, just as they choose—i. e., they can be an honor to their country, an ornament to society, and a help to their friends.

Bainbridge, June 11, 1862. STEPHEN B. BEAL.

[For the Country Gentleman and Cultivator.]

CASHMERE (SHAWL) GOATS.

MESSRS. EDITORS—Having lately been frequently inquired of in regard to Cashmere goats, I will by permission write a few lines touching on their adaptation, &c., to our climate. They have now been on my farm two winters, and although a part of the flock was bred in Georgia, some of which landed here in the night, and on rising in the morning I found a heavy snow had fallen, and a cold northwester driving soon after; yet no damage was sustained, though one of these was a small kid just weaned and shipped here. Last winter they had little or no care save an open and elevated lot, with winter pasture. When wet or very cold they slept in a stable, yet seldom had hay or grain, and often slept on the ground with nature's covering only over them, and on several occasions passed the night in this way. No variety of stock that I ever owned appeared so independent of man, or requiring so little care or causing so little trouble, and although most of them have not passed the age of two years, yet they have dropped kids each spring, viz., of '61 and '62, and further, they have raised them. They are always in fine health and conditon. Their fleece, to say nothing of their value for costly shawls, can readily be worked into garments of various kinds to clothe the body and feet. They so soon and so readily improve the offspring of the common she goat when she is bred either to a grade or pure Cashmere male, and their flesh so much like the deer, their pelts so valuable for rugs, robes, or for the saddle, that they are destined to become a considerable object among farm stock, and I may add their beauty forms a striking contrast with many of the uncouth animals to be met on so many farms.

Near Brownsville, Pa. J. S. GOE.

[For the Country Gentleman and Cultivator.]

Preparation and Application of Barn-Yard Manure.

The best manner of preparing and applying barn-yard manure was one of the subjects discussed at one of the Evening Meetings of the New York State Agricultural Society last fall at Watertown. One of the most important points in that discussion, was to settle what each of the speakers meant by *barn-yard manure*. Some man who devoted all his farm to the support of cows, would protest against moving manure from the sheds and piling it out in the sun and rain to be evaporated or leached out, and thus a large part of its value wasted. Another, who was a grain raiser, was quite as confident that if it was left in the sheds, it would fire-fang and decay slowly, and suffer greatly. These men did not understand each other, simply because each judged of the matter by the circumstances that surrounded himself. The man of cows had little straw or anything else to litter down his stables, and thus his manure was nearly all *cow dung*. The man of grain had vastly more straw than he could get his stock to trample underfoot and get in any condition to ferment properly, so as to reduce its bulk. Finally we worked out of this smoke, and came to understand each other, at least partially.

My case is that of the grain raiser. Usually we have a large surplus of straw, after we have used all our stock during the winter to trample it underfoot as an absorbent. Our sheep sheds will have from two to three feet of what we call manure, in depth, which we must take out and mix with the manure of the yards, and pile it up so as to have it receive and retain the greatest possible amount of the rains that fall on it. These piles *have never fire-fanged* with us; but sometimes the manure begins to fire-fang a little before we can find time to get it out of the sheds.

But why not draw this manure directly to the field and put it at work in enriching the soil? This question is constantly asked, and should be answered. The first reason is: the straw has not yet absorbed all it will and should, from the excrementitious matter mixed with it, and if it is drawn out and spread it will never absorb it. The next reason is: the whole mass is too bulky to be advantageously applied, either on the surface or to be plowed in. In fact it cannot be plowed under, (without some extra hand being required to bury it in the furrows,) by any process known to us. The third reason is: two or three loads of this bulky manure will shrink into one, by the time we are ready to apply it to grass or wheat in the fall, and thus it is far less work to pile in the spring and draw and spread in the fall, than it is to take the whole crude mass out in that season of the year when the ground is full of water, and so soft that the wagon wheels cut and puddle roadways, to the great damage of the field. I must here say that this plan of working our manure on our grain farms, is not peculiar to us, but is nearly universally adopted by all our neighbors and men everywhere, so far as I know, who are like situated.

With the grazier things are all different, and they are sagacious enough to do about the thing best for them. And Mr. Editor, allow me to say farther that so far as my travels have extended, I have found that farmers generally know about what is best for them to do in view of the kind of farming they are engaged in, and in view of their proximity or remoteness from market. And it is very dangerous to advise any very wide departure from the practices of the progressive farmers of any locality.

As to the point now under discussion in the Agricultural papers, relating to surface manuring, or manure deeply buried, I wish to say that on our lands I have no doubt that manure should be put on or near the surface. Ground intended for wheat, after the last plowing, when the furrows are as rough as the plow has left them, is just in the condition to receive the manure that has been reduced in bulk and mixed by the processes practiced here. The harrow will mingle it with the soil, and perhaps slightly cover most of it, if it is drawn across the furrows. Then roll the land and drill in the wheat, and leave the surface untouched behind the drill. If any thing will insure a crop of wheat *here*, this is the way to do it.

I have many times drawn unfermented manure from the yards in the spring, and put it on sod-land intended for corn, and plowed it under deep and well at great cost, but with very little benefit to the crop. The next time this land was plowed, I have seen this strawy manure, covered with white mold, in the bottom of the furrow. We do not follow this practice *now*. If we were to attempt to raise extra large corn, we should begin farther back, and manure the land when we put it into wheat; again while we were pasturing it; and save some well-rotted manure over a year, and top-dress the soil after we had plowed it; then harrow well, and plant with "great expectations."

The discussion now going on in your paper, in which my name has appeared, has led me to write the foregoing.

Fairmount, N. Y., July 4, 1862. GEO. GEDDES.

[For the Country Gentleman and Cultivator.]

PROFITS OF POULTRY.

Messrs. Editors—When I wrote to you in May, I said I would tell you how I made poultry profitable if you desired it, and you said "let us have it." Now I will premise that I have no great profits to tell of, but I can show that keeping poultry may be made profitable to some degree, even when all their grain has to be bought. We have no other animals but hens about the house, and so save all the waste scraps from the table for them. My hens are of the common mongrel kind. I sell all their eggs, and this is my chief source of profit.

During the year 1861, from nine hens, I sold eggs to the value of $7.20, and in the fall killed nine fowls worth $1.80 —total receipts $9. The value of my poultry feed, (of course the waste scraps are not estimated) for 1861, was $4.46. Profit, $4.54.

During the first six months of the present year, from nine hens, I sold eggs to the value of $4.82. The cost of my poultry feed for the same time was $1.72. Profit for six months, $3.10. I keep only a few fowls—of course the profits would increase in proportion to the number of hens.

I had rather poor success with the ducks I spoke of in my last: eleven were hatched, and in less than four weeks the rats had killed all but one. They took five ducks from under the old hen in one night, when the hen was shut up in a little pen in the yard. The others were carried off in the daytime. At the same time a neighbor lost eight young ducks. I have not been able to poison all the rats yet. I expect another brood of ducks to hatch soon, and I may lose them all in the same way.

On page 368 of the last volume of the Co. Gent., Avis recommends "an old tin pan or a trough" for my ducks. That would answer while they were small, but when grown larger, they could not *swim* at all in either. My hens do not lay well in the winter, as I suppose the Black Spanish fowls would; for from Nov. 15, 1861, to Feb. 15, 1862, only one dozen eggs were laid. G. M. *Conn.*

KEEPING EGGS.

Is there any method by which eggs, if collected when perfectly fresh, can be kept until winter and be as good as new eggs, or nearly so? S. L.

They may be easily kept if placed in a cool place *on end*. Some think they should be placed on the small end; we have long known this to be entirely successful. Others insist they should be placed large end down—this has also succeeded. A small cupboard, with numerous shelves, bored with holes just large enough to hold an egg each, on end, is an excellent contrivance. It should be placed in a cool cellar. Packing in salt, ashes, bran, &c., owes its efficacy to the egg being placed on end—while excluding heat by the ashes or salt, is no doubt useful.

Reappearance of the Grain Louse.

It will be remembered that about this time last year a comparatively New Insect made its appearance in countless numbers on the Grain fields over a wide extent of territory, embracing portions of New-England and this State, but, so far as we are aware, not reaching very far into the interior, or at least not swarming in such quantities, after one had passed well into Central New-York and farther westward. We refer to the Grain Aphis, described at length by our valued correspondent Dr. ASA FITCH, on page 114 of vol. XVIII of this paper. It did not appear to do much damage to the rye, wheat and barley; but on oats, particularly where the crop was a late one, it was thought to have lessened the product and weight very greatly. This was especially the case in Northern New-York, where the season was backward, but some damage was also laid to the account of this louse in the river counties, in which it was probably about as early as usual.

Dr. FITCH expressed the opinion that the Grain Aphis would not again overrun the same districts the present year. This opinion seems to be vindicated, as far as our information now extends, by the experience of the present year.

But we are beginning to hear of it, to the westward of its former range, in no less wonderful quantities than we had it at the East last year. We understand indirectly, that it is appearing in the western part of this State; the newspapers of Canada West speak of it as now covering the heads of grain in some fields, so thickly as to give them quite a brownish appearance, and a correspondent at Merrillsville, Michigan, under date of July 16th, writes us as follows:

"EDS. CO. GENT.—All the spring and fall wheat in this vicinity was recovering under the influence of several rain-storms, from the effects of the drouth, and farmers were beginning to congratulate themselves upon the prospect of a good crop, when all these fair prospects were thrown to the winds by the appearance, jointly, of the midge and a strange insect resembling a louse, but of various brilliant colors, which covering all latish pieces of wheat, threaten to wholly destroy them. The latter mentioned insect is entirely unknown here, and I write to you for information regarding its name, manner of breeding, and probable effect upon grain. If you, or some of your many correspondents, will answer these queries through the Co. GENT., you will confer a great favor upon H. W. H."

For the information requested we refer our correspondent to Dr. FITCH'S article above alluded to, and to other notices of the Grain Aphis, contained in vol. XVIII of the Co. GENT. We do not think apprehension need be felt of serious injury to any other crop than oats.

It will be matter of interest, and worth placing on record, to obtain farther information as to the extent of territory through which this insect is now showing itself. If our subscribers who find it in any very large numbers on their farms, will apprise us of the fact, we shall be able to state hereafter with some degree of accuracy the ground it has gone over, and to judge with possible correctness as to where its arrival may be expected another year.

[For the Country Gentleman and Cultivator.]

POLL EVIL.

On page 92, vol. 19 COUNTRY GENTLEMAN, a cure is given for Poll Evil after it has commenced running. Now it is a good thing to know how to cure it at this stage of the disease; but I prefer to effect a cure shortly after its first appearance. Dissolve as much common salt in urine as it will dissolve when hot, and apply quite warm two or three times a day until a cure is effected.

Five dollars was paid a V. S. for this recipe. I have known several cases perfectly cured by it, and never knew it to fail. J. M. KNAPP.

[For the Country Gentleman and Cultivator

Fine Thorough-Bred Sheep in Vermont.

RUTLAND, VERMONT, JULY 14th, 1862.

MESSRS. EDITORS—I notice in your issue of July 10th, 1862, a letter signed GEORGE BUTTS, Manlius, N. Y., treating on fine wool sheep, and weight of fleece—also asking to hear from others in a similar way.

I am on a visit to Vermont in search of thorough-bred sheep, looking for myself instead of buying of eastern traders and speculators that visit our section annually, and being deceived, as I have been by them, and for the last time I think, paying them large prices (as I now find) for grade sheep. I have just returned from a visit to the farm of N. T. SPRAGUE, Jr., of Brandon, Vermont. I was kindly shown over the farm by Col. H. H. Merritt, the shepherd and care-taker of the premises. And such sheep! It would do any lover of fine stock good to see them. One buck deserves special notice. He was two years old April 27th, 1862. He sheared this season 22 lbs. 9 oz. of white, handsome unwashed wool—(I weighed the fleece myself)—a perfect sheep in shape, with a strong constitution. Also 18 two-year old and 18 yearling ewes that sheared 424 4-5 lbs. of wool, (the average is 11 4-5 lbs. per head,) without selecting out the best, as is many times done, and giving to the public the weight of fleece of blood sheep—a piece of deception oftimes practiced upon the reading community. The above number of yearlings and two-year olds, are all that were raised on said farm in 1860 and 1861. The flock of thorough-bred sheep on said farm is 103. They sheared, as I am informed by Col. Merritt, 1,036 3-16 lbs. of wool. The wool is white as I ever saw—in fact I think that any wool-buyer would pronounce it a handsome lot of washed wool. It is a long staple with a white eke or oil, a strong fibre denoting a strong constitution and good breeding.

This flock was bred from the Atwood flock of Connecticut. Mr. Sprague informs me that when he commenced breeding them they only sheared six lbs. per head. He has almost doubled the weight of fleece. I say to sheep breeders of the west, what has been done, can be done again. I think that the west has the brains, capital and climate, to compete with Vermont and her sheep-breeders. Let us wake up to this subject, and raise our own fine stock instead of going to Vermont for it. We can do it by buying their best instead of their grade sheep, and in no other way. To be sure it costs more in the start, but it is cheaper in the long run.

I have visited many fine flocks in Vermont, and at some future time with your consent, Messrs. Editors, I will give your readers a brief sketch of my visit here—also a short history of sheep-breeding, as practiced in Vermont.

The crops in the valley of Otter creek are looking well. The western towns of this state, bordering on lake Champlain, have suffered severely with the drouth—grass not more than one-half the usual crop. Corn all through the state, is quite backward.

The war spirit in Vermont is above zero. I learn that she starts her first regiment under the new call for 300,000 men, to-morrow. If this is true, she will be the first in the field under the last call, if I am rightly posted.

In conclusion, I would say to sheep-breeders, can you beat the above described flock, confining yourself to the white eke or oil, with a long staple, desirable shape and strong constitution? *If so, speak out.* We go for improvement. HENRY J. BROWN
of Kalamazoo, Michigan.

What is that which makes every body sick but those who swallow it? Flattery.

The Seventeen Year Locust in Kansas.

My Dear Co. Gent.—Again in my perplexity I turn to you. The locusts are overrunning this whole country, and the tops of the bushes on the skirts of timber and prairie look as though a fire had passed over them. They get on to my fruit trees and give them "fits," to use an expression more forcible than elegant. I enclose a sprout of a peach tree to show the manner they bore the limbs; it is like the effect of thrusting a large needle into the limbs; they leave eggs in the limb. Probably this specimen will get too dry to give you a good idea of their attacks here. The limbs become so weakened by the boring as to bend down and wither and die. Probably you know all this, and more.

One of my neighbors says the eggs form worms that within 60 days, or next spring, he don't know which, work their way into the ground, through the tree.

Will the Co. Gent., or some contributor, tell us what really becomes of the eggs, and whether there is anything to be feared from them, and if there is, how their ravages may be stopped.

Is the black grub as injurious to fruit trees as the white grub? R. *Doniphan Co., Kansas, June*, 1862.

The peach shoot sent has the usual appearance of the locust punctures. The eggs are slenderer than usual, or in diameter only about one-third their length, which is one-twelfth of an inch—diameter one-fortieth of an inch—but they may have contracted by the drying of the shoot. Harris says the usual diameter is one-sixteenth of an inch. Will our correspondent send two or three of the insects by mail in a small pasteboard box?

If these are the seventeen year locust,* as we suppose them to be, the trees will have sixteen years to rest and recover. We know of no remedy for such an army. This year, 1862, is not designated in any work we have seen as a locust year, and this account indicates that Kansas furnishes a new family, or one hitherto unknown. According to Dr. Fitch and others, there are nine different families already known, and this will make the tenth. The Hudson river region was visited in 1860—the next visit there will be 1877. Western New-York and adjacent regions 1849—the next 1866. Massachusetts, Western Virginia and Mississippi valley, 1855—1872. Pennsylvania and Maryland, 1851—1868. Portions of Western Pennsylvania, Ohio valley and Louisiana, 1846—1863. Northern Illinois and adjacent regions, 1854—1871. North Carolina, 1847—1864. Martha's Vineyard, 1850—1867. Connecticut valley, 1852—1869. Two or three of the latter may have been stragglers.

The larva remain under ground till the next period of their appearance—some suppose they feed on the roots of trees at this time, but their mode of living is not satisfactorily determined. It is certain they remain near the place they went down, as there are many cases where trees which they infested were cut away and entirely removed sixteen years before their abundant re-appearance on the very spot afterwards.

We have not been much troubled with the black grub, except in injuring very young and succulent trees. The white grub has proved quite destructive on older seedlings. We have found the best way to employ boys to dig them out and kill them—paying them wages by the day, or giving so much per 100.

☞ The 2d Annual Fair and Cattle Show of the Rosendale (Ulster Co.) Agricultural Society will be held on the Society's ground, Union Course, Rosendale, on the 16th, 17th and 18th days of September, 1862. Israel Snyder, President; S. P. Keator, Secretary.

HORTICULTURAL ITEMS.

Propagating the Quince.—How is the quince propagated? If from seed, where can I obtain some, and at what price? G. W. H. *Onondaga Co., N. Y.*

The orange quince is easily raised from seed, like the apple and pear—but the true variety cannot be relied on when produced in this way, and the stocks thus produced must be budded or grafted with the genuine sort. The more common way is to raise the trees from layers, stools, and cuttings. The French quince for pear stocks is raised exclusively by stools and cuttings. Seed of the quince is not often offered in market.

Cultivation of Small Fruits—I wish to get some information through the columns of The Cultivator, in regard to the cultivation of the strawberry, raspberry and blackberry. What soil is best suited for their growth—kind of manure to use—necessary preparation of the soil—quantity of manure to be used on soil that will produce fifty bushels shelled corn per acre—best market sorts—best time for planting, spring or fall—cost of cultivation—cost of plants and where they can be obtained—profits per acre? Which of the three berries are the most profitable? Also, what is the best work published on small fruits? If you or some of your correspondents will please answer, you will oblige your subscriber. J. L. S.
Esopus, N. Y.

As a general rule, give the soil the same manuring that is required for the best corn crop. Strawberries and blackberries may not need quite so much as the raspberry. Good, well rotted stable manure, or compost, will be best. The only preparation of soil is good fine pulverization, by plowing and harrowing—if subsoiled or trench plowed, all the better, especially for the raspberry.

The best market sorts of the strawberry are Wilson's Albany, and Triomphe de Gand. In some places Hovey's is profitable. Early Scarlet and Jenny Lind are good early sorts, but less profitable. Strawberries with the very best culture and management will yield 2 or 300 bushels per acre, but half this is the more common crop. The profits depend entirely on the market, and skill in management—say $300 per acre, if well managed. The best market Blackberry is the Rochelle, (miscalled Lawton,) which at its best has borne 200 bushels per acre. The Doolittle, Hudson River Antwerp, and Franconia, are the best raspberries—they will yield half as much as the Rochelle blackberry, but sell higher. Cultivation by a horse is best for all these, and by far the cheapest—it need not cost much more per acre. It is essential for the success of the blackberry that new summer canes be pinched in when three or four feet high, to prevent a long straggling growth, keep the plants snug and compact, and promote fruitfulness. It is hard to say what the profits per acre will be for these different fruits, or which is most profitable, as so much depends on market and management. Pardee on the Strawberry, published by Saxton, and the first volume of Rural Affairs, contain much that is valuable on small fruits.

Improvement in Culture.—A few years ago, about one hundredth part of all the fruit trees and small fruits set out, were sufficiently cultivated, and resulted in success. Necessity has created an improvement, and there is more and better cultivation now than formerly. Purchasers of trees heard the favorable stories of great success and high profits, and thought that all they had to do, to be equally successful, was merely to purchase and plant the trees. Entirely failing, through total neglect of culture, they pronounced "all these stories humbugs." Nur-

serymen soon found that the greatest obstacle in the way of extensive planting, was neglected cultivation—for no one can be expected to purchase trees when he sees every one fail. Renewed efforts were therefore made, to introduce better management, and they are slowly succeeding.

A Beautiful and Splendid Plant.—We had the pleasure of seeing a few weeks since at New Bedford, Mass., a very fine specimen of the large new Clematis (C. azurea grandiflora,) in the garden of a gentleman by the name of Haskell, a young merchant of that place. The flowers are white with a slight shade of blue, and measured about six inches in diameter—some were six and a half inches. The plant covered a wire network trellis, four feet wide seven feet high—and on this trellis there were about *six hundred* of these large and showy flowers. The splendid appearance of the whole can be easily imagined. The plant proves perfectly hardy and remains on the trellis all winter without injury. It was procured of Parsons & Co. of Flushing.

[For the Country Gentleman and Cultivator.]

CUTTING STALKS FOR FEED.

Those who have plenty of leisure might be well employed at this—but as a matter of business I think it will not pay—at least on an extensive scale. As the coarse heavy portion of the stalk is generally refused, unless sugar-coated, I prefer not harvesting this at all, but cut high, leaving a corn stubble 2½ to 3 feet high. This is preferable for many reasons: it is much less labor to the hand cutting, enabling him to put up one third more shocks per day. The shocks stand the hard winds much better when cut in this manner. One-half the weight is avoided in handling and hauling the fodder, and lastly the stock eat it all up clean, if you put it in a clean place.

We feed our fodder under dry sheds. Every morning from the 1st Nov. to the middle of April, we haul from 4 to 6 shocks, and lay the armfulls back against the wall on the ground. The next morning there is little or no filth perceptible, but enough of the dry litter is strewed about to afford the cattle a comfortable bed. In the spring when we wish to spread the manure—which we generally put on ground intended for potatoes—we back under our carts, and with the dung forks rake aside the top litter, and then we have about 12 inches in depth of solid, well mixed manure, which we find no difficulty in handling and plowing in. In another article I will describe another method of feeding, which I practiced one winter with success, in connection with straw as manure.

I will also send you an article on the cultivation and handling of Irish potatoes, having noticed some complaints in the Co. Gent., of the potato disease. I think my observations will prove of some value to those who have suffered or may suffer. A Kentucky Farmer.

Boone Co., Ky., June 18, 1862.

[For the Country Gentleman and Cultivator.]

Fine Wooled Sheep in Onondaga County.

Messrs. Editors—I have just been reading John Johnston's letter, in which he speaks of having seen three of Mr. Geddes' rams shorn, the fleece of one weighed 16¼ lbs. and the others 16¾ and 17¾ lbs. He also speaks of having seen the wool from a flock recently shorn, which averaged 6½ lbs. to the fleece. This is all good shearing, and well worthy of commendation, but I think there are other flocks and other rams in this county which will beat the above figures. The whole average of my flock, is 7 lbs. 3 oz., and my stock buck's fleece weighs just 17 lbs. of well washed wool, (a small sample is herein inclosed.) This buck has run with my flock during winter, and was not sheltered only at the pleasure of the sheep. Adding one quarter to the above weight—(this is the rule of reduction here for unwashed wool)—would make it 21¼ lbs., which is some more than Mr. Geddes' rams sheared when in the dirt. My ram is a Spanish Merino, bred in Vermont. I have not written this in a spirit of boasting, but to let your readers know the real difference in good sheep, hoping to hear from others in a similar way. George Butts.

Manlius, N. Y., June 21, 1862.

[For the Country Gentleman and Cultivator.]

THE GRAIN LOUSE.

Eds. of Co. Gent.—A few days ago I wrote to you that the grain aphis or plant lice had made their appearance here. The first I discovered were on my winter wheat, 30th of June; they were then comparatively "few and far between," from one to four on some few of the heads of the grain; now, 5th of July, many of the heads are pretty closely packed with them. It is astonishing with what rapidity these insects propagate. In their breeding qualities they out-do all the rabbits and mice that ever ran upon "all fours," or even the most prolific mormon families in the Valley of the Great Salt Lake.

Some varieties of my wheat are so far advanced, that I think they will not be much injured by the lice—(nor the midge.) But we have great reason to fear that late winter and spring sown wheat, as well as oats and barley, will be much damaged by the aphis. L. Bartlett.

Warner, N. H., July 5, 1862.

[For the Country Gentleman and Cultivator.]

THE BEST WHEAT FOR KENTUCKY.

Experience is one of the best guides by which the farmer can direct his course, in either the rearing of stock or in the cultivation of the various cereals and crops of our country. In general the Kentucky wheat has, up to a few days past, looked unusually promising; but within the last week, all or most of the white smooth head wheat has been taken with the rust, and to a considerable degree is more or less infected with smut. As I have over sixty-five acres of white wheat injured as above described, I have in riding through this county, taken care, by observation and inquiry, to ascertain whether all kinds, or the white alone, was infected by rust and smut. The result of my investigation, after seeing a number of our best farmers, is that the variety known as the Mediterranean bearded wheat, and indeed all of the bearded wheat, is free from rust, and comparatively free from smut. I am also told that for the last eight or ten years, when rust has more or less injured the wheat crop in this State, the bearded Mediterranean has been entirely free from rust, and preserving, as it does at present, up to harvest, a fine bright color.

There is a variety with us known as the Alabama bearded wheat, which is equally exempt from the above blight, and is a fine yielder. I shall however endeavor to sow in the fall only the Mediterranean variety, believing it to be the best for our latitude. Isaac P. Shelby.

[For the Country Gentleman and Cultivator.]

TURNIPS AMONG CORN.

On the 30th of 7th mo., 1860, I had flat turnip seed sown among my corn after last cultivation—a boy ran after seedsman dragging a rake. Continued sowing for a day or two as the ground was ready. A shower following put in part of the seed sufficiently without raking. Ten acres were sown with no subsequent culture, yielded in addition to a good crop of corn, 800 bushels of turnips.

I have frequently thus sown turnips, sometimes successfully and sometimes entirely failing. It is an uncertain crop but certainly inexpensive. S. Allinson.

Mercer Co., N. J.

[For the Country Gentleman and Cultivator.]

RED CLOVER---Trifolium pratense.

My Dear Ned—The cultivation of the forage plants is comparatively recent. In England it was unknown till about 1633. When the early emigrants came from that country to this, they had little or no idea with regard to cattle food, but to depend upon the luxuriance of nature. A few of our northern winters taught them their error. In summer their cattle did well enough, but in winter they suffered much, and many of them perished. It became manifest, that in this climate a different policy from that which had succeeded but badly in England would be absolutely necessary. They resorted to the sowing of the grass seeds. The practice of the colonists reacted upon England. Other causes co-operated, and from that time to this there has been continued progress in that country in the cultivation of the forage plants; and probably no people to-day better understand, than the English, the importance of this cultivation, both to the production of meat and dairy products, and to the preparation of the soil for the cereals.

But while the forage plants generally are cultivated earlier in this country than in England, clover seems to have attracted attention there earlier than with us. It was introduced here early in the last century. It is red clover of which I now speak. White clover was indigenous to both England and this country. When red clover was first introduced, the prejudice against it was so strong that about a century was required to overcome it. Whether the prejudice is yet so entirely done away that we can fully appreciate its value, is doubtful.

Culture of Clover.

Thirty years ago, it was common to sow clover with the fall or winter crops. It is now pretty generally agreed that spring is the best time for sowing it. If sown in the fall, it is apt to kill out; or if it does not winter-kill, it comes forward too early for the good of the grain crop. With regard, therefore, to the winter grains, it is well to sow it either on the snow very early in spring, or on the wet ground as soon as the snow melts, and while it may have the benefit of the early spring rains.

In all other cases I think it should be sown in the spring or summer. In one case the summer is the best time, and in fact the only time; that is, for the August seeding of mow lands or old pastures. There is many a field in which the grasses do but poorly, not so much from exhaustion of soil as from other causes, and which it is well worth while to turn over and seed on the inverted turf. Invert these soils to a good depth; top-dress with ashes, (which contain lime largely,) or with lime itself; run the harrow with the turf, to produce a smooth surface; sow to clover, herdsgrass, and red-top; roll with a heavy roller, if the soil is light, but with a light roller if it is inclined to consolidate, and you will be pretty sure to find good mowing or pasturage, as the case be, on land that has become turf-bound, and was producing but little. If this is done in August, the clover will generally become so far rooted as not to be in much danger of freezing out.

There has been some dispute, whether clover is an annual, a biennial or a perennial plant. I would set it down as a perennial plant, that is, a plant which survives many years. It will not flourish, will not shoot forth long stems, and blossom and produce seed, any longer than there is an abundance of its chosen food (lime,) in the soil; but in any tolerable soil, it will live twenty or thirty years; and all this time it will be ready to put forth long stems, to blossom and produce seed, the moment you furnish it suitable food. If, on an old mowing, that was seeded with clover and herdsgrass 25 years ago, and has been mowed or grazed ever since, you examine the surface in June or July, you will find, that, down among the very roots of the grass, there are innumerable stinted clover leaves, not larger than the ear of a mouse, but large enough to show that the roots are still alive. If any drop in any part of that field a few shovelfuls of any mineral manure abounding in lime, as wood ashes, leached or unleached, common slaked lime, oyster shell lime, or old plastering pulverized, you will find that next year the clover will spring up and outgrow all the grasses about it, showing that it has lived the last quarter of a century, and been waiting all that time for something to grow upon, and marking in each case precisely the spot where the fertilizer fell. If you had dropped barn manure instead, the same would have happened in part, inasmuch as that also contains lime, but the preponderance of the clover would not have been as distinct, because the barn manure would have sent up such a growth of the common grasses, as would have choked down, or at least have concealed the clover. Any one who will try an experiment of the above kind, will see that clover is long lived, whether strictly perennial or not. It is worth while for you to remember that clover is a lime plant, and that lime in wood ashes, or other fertilizers containing lime, are its appropriate pabulum.

The most suitable soil for clover is a rather warm loam, which contains lime either as a natural ingredient, or that has been added for purposes of cultivation. Next to lime, as a carbonate in the form of ashes, common or shell lime, perhaps its sulphate, (plaster,) is the most favorite food for clover. As regards the very common notion about clover sickness, as if land sometimes becomes sick of clover, I very much suspect there is more fancy than truth in it. When clover refuses to grow on a particular field, it is probably because the food it wants is not there, or is not in a condition to be taken in by the clover roots. You cannot too well understand that all plant food, in order to favor the growth of a plant, must be in solution. If you put a grain of salt, of sugar, saleratus, or soda, in a quart of water, it does not give the water a white or milky appearance; it is dissolved; it leaves the water as clear and transparent as before. It is in this perfectly clear, transparent solution, that all plant food is taken up. Of course there is a great deal of plant food in every soil which is not yet dissolved—it is not yet in a soluble condition—and therefore I believe the only clover sickness that soil ever has, is simply a deficiency of clover food in a condition to be taken in by the clover; and I believe further, that no man who practices a judicious rotation of crops, not continuing any one crop unreasonably long, will ever be troubled with clover sickness.

The clover seed has considerable size, and great germinating power. In sowing, there is not the same necessity for caution against too deep covering, as with the smaller grass seeds. It is well, however, to prepare for it a pretty smooth seed bed, and to cover to no great depth—say an inch, or rather less. In sowing it with any of the spring grains, I would rather harrow in the grain first, then bush in the clover seed, and after all, roll with a lighter or heavier roller, according to the nature of the soil. When seeding land for mowing, I hope you will adopt the practice of picking off the loose stones before rolling, instead of rolling them in. If rolled in, the frost is always throwing them out to trouble the scythe or mower.

Clover as a Fertilizer.

That clover is enriching to the soil, is now generally conceded. I regard it as the cheapest fertilizer the farmer can use. This, however, depends somewhat upon the locality, and is the more applicable where land is low, and of course its annual worth not great, for it takes a year to grow a large crop of clover roots, and if the annual rent of land is high, its use a year for this purpose cannot be afforded. Clover may in such a case, become costly beyond its worth for fertilizing purposes. Its value as a fertilizer will therefore vary with the value of land. Its fertilizing power I think depends mainly on three things: 1st. During its growth, like all other broad-leaved plants, it takes largely from the air, and then in decaying deposits its aerial or organic matter in the soil. 2nd. Its roots run deep, draw inorganic matter from considerable

depths—often 20 inches or more—and subsequently deposite it near the surface, quite within the reach of the short-root plants. 3rd. The perforations by its roots, and the subsequent decay of these roots, tends to make the soil porous, more accessible to air and water, which in heavy soils is an important point to be gained. Other crops have been resorted to for green manuring; but where clover can be made to flourish, and that is nearly every where, it is doubtful whether any other is as good.

Is mowing, or feeding off, or plowing under, the best practice? To get light on this question, we must consider that the roots are the largest, and, for manuring, the best part of the crop. In view of this fact, I incline strongly to the opinion that mowing or feeding off the first crop and turning in the second is the better course; especially do I believe it to be so on light sandy soils. On such soils, I cannot but think the fermentation, occasioned by turning in a large green crop in the heat of summer, causes much of the fertilizing value of the clover to escape into the air and be lost. If I were now farming for myself, instead of advising another, I would certainly save the first crop of clover, either as summer feed or as hay. It may be that on tenacious soils the opposite course is as well, though I do not believe it is, and I am quite sure it can not be well on light sandy soils. I confess here to a feeling on the subject, which may have unduly biased my judgment. I have often turned under splendid crops of clover in June or early in July; but I never could do it without a feeling almost oppressive, that it was a sort of desecration of a sweet, lovely and beautiful gift of Providence; and with my present conviction, that the land is as much benefitted by the summer growth or first crop of clover, after the cattle have devoured it as before, I could hardly bring my mind to a repetition of the old practice.

Making Clover Hay.

A word with regard to the making of clover hay. In our sunny climate, I think we are apt to sun our hay too much. It should be made more in the cock. When hay becomes slightly warm in the cock, the water evaporates and the hay is less harsh and woody. More of it is soluble in the stomachs of animals. They like it better, and derive more nutriment from it. But there is an extra reason for not sunning clover too much; its leaves fall off and are left on the field. The better way is to cut it in the morning; let lie in the swath the first day; throw it into small cocks at middle of afternoon; turn these bottom upwards, at 10 or 11 o'clock the second day; throw two of them into one towards night; the forenoon of the third day, turn once again, and perhaps spread a little, if that seems to be required, and again put two into one in the afternoon; and so on till dry enough for the barn. A small degree of warmth does the hay no harm, but is a positive benefit—renders it both more tender and more nutritive. But take care not to store it till dry enough not to heat very much in the barn, and not to smoke when handled in winter. UNCLE ZEB.

[For the Country Gentlemen and Cultivator.]

Wool-Growing in Illinois.

There is much wool raised in this county, and much of it has been sold at from 40 to 47 cents per pound. A neighbor sheared six yearling ewes that averaged 12½ pounds. His bucks sheared from 12 to 18¼ pounds of washed wool. They are Spanish Merinos.

Another neigbor had last year a flock of 500, that averaged 8¼ pounds. They are not all shorn yet this year.

These sheep are from Vermont, and I am told by their owners that the same sheep will shear a pound more per head here than they did in Vermont. We are troubled some with wolves. Many have lost lambs by them this spring. Most farmers yard their sheep at night. They are the large grey wolf. All this is in sight of the smoke from the great city of Chicago. A few miles from the city are large tracts of land owned by speculators, where large flocks and herds are kept during the day, and yarded at night. W. M. *Dupage Co., Ill.*

[For the Country Gentleman and Cultivator.]

COBS FOR FUEL.

MESSRS. EDITORS—Permit me to call the attention of farmers that may be shelling corn at this time of year, to the advantages of saving cobs for fuel. I have saved my cobs for several years, and have never found anything else so handy to make a fire when cooking feed for hogs in the fall, or in heating water for scalding, when killing hogs. They not only make a quick, hot fire, but they are easily kindled. Put a basketful of dry cobs under a kettle, and throw a small shovelfull of live coals over them, and in a few moments, without any further attention, they will be in a blaze. Then with a little coarse, rough wood, or any kind of chunks or old logs, old rails, or in fact anything in the shape of wood, and two or three baskets of cobs, will cook a kettlefull of any kind of feed.

When killing hogs, I have never found anything that would heat water as quick as cobs. With a few chunks and knots, such as always will be left when fitting wood for the stove, and plenty of cobs, I can heat water quicker than any set of hands I have ever had could scald and dress the hogs. Then cobs need no preparation; they are always ready. It is only necessary to have them stored where they will be handy when wanted, and kept dry. F.

[For the Country Gentleman and Cultivator.]

To Protect Seed Corn from Crows and Promote its Growth.

In the last number of THE CULTIVATOR is an article on this, which is no doubt effective, but we think the following mode less troublesome and quite as good. Put the corn in a basket, pour hot water upon it to wet and heat it thoroughly; let it drain a little; then pour it into an old box which you do not care to have soiled, and pour upon it a *very small* quantity of *coal* tar, stir it well with a stick until it is all coated; then add a little plaster or ashes to dry it. It will not stick to the fingers, and its growth will be much hastened by the process. Coal tar is best because it is so thin, but if it cannot be obtained, *heat* common tar until it is quite thin, and then there will be no trouble at all from the grains adhering to each other. I think ashes will promote the growth of the corn more than plaster when used to dry it.

Last season we had some corn left after planting the main crop, which had been coated with coal tar as described above and dried with ashes, and drilled it in a small patch for fodder. Not having a sufficient quantity of the prepared seed, we planted the remainder of the lot with dry corn, and the difference in the growth of the two lots was beyond our expectation. The tarred corn came up several days sooner than the other, and grew more rapidly throughout the season, making the heaviest crop in the fall. At the time the corn from the prepared seed was a foot high the other was only about half as large, although the soil was similar and both planted at the same time. Having a row planted with seed of each kind made the difference in the growth very prominent.

Corn may be planted near the barn when prepared in this way, without the necessity of cutting off the fowls' toes, or shutting them up, as they will not disturb it.

We once tried the experiment of soaking seed corn in a solution of chloride of lime and copperas, which receipt has been so strongly recommended, promising a wonderful growth, a gain of six weeks; but in our trial it proved worthless. We planted in the same box some dry corn, some soaked in warm water, and some soaked in the solution of chloride of lime and copperas. The dry corn came up soonest, grew the fastest and had the strongest roots. That soaked in warm water was nearly as good; while that steeped in the solution, did not grow so well, and many of the grains rotted in the ground. We repeated the experiment with a like result. DAVID STREET.

Salem, Ohio.

THE CULTIVATOR.

ALBANY, N. Y., AUGUST, 1862.

☞ Upon the invitation of Hon. EZRA CORNELL, President of our State Ag. Society, we are pleased to announce that the Rev. ROBT. J. BRECKINRIDGE, D. D., LL. D., of Kentucky, will deliver the Annual Address at the coming State Fair at Rochester.

Readers of the COUNTRY GENTLEMAN are already familiar with the high reputation enjoyed by Dr. BRECKINRIDGE in Agricultural practice. Owning a fine estate at Brædalbane near Lexington, the pursuits of the farm have been always regarded by him as second only to those of the sacred desk.

But, during the present contest, to write and labor in the cause of the Union and Constitution, has taken precedence with Dr. B. over the duties of both the pulpit and the field. When the cloud of rebellion first rose above the horizon, he sounded an earnest note of warning, and, from that time to this, his course has not wavered in the great cause,—although, lacking as it did, the unanimous support of his fellow citizens and friends, the task of the Patriot in Kentucky was rendered one of peculiar difficulty and perhaps sometimes of personal danger.

We trust that the Farmers of New-York will show, by the general and hearty welcome extended to Dr. BRECKINRIDGE at their great Annual gathering, not only their appreciation of the manly and noble spirit of loyalty he has manifested so constantly and with an influence so effective, but also their determination to emulate his patriotism as a citizen and his zeal in the advancement of the Agriculture of the country.

☞ Away from the close and hurrying streets of the cities,—away from their rattle and bargainings,—away from their walled-in bits of sky and tainted breezes, wealth with every successive year is coming to look more and more earnestly to the fresh atmosphere, and unbounded scenery, and welcome quiet of Country Life. Here, it has been discovered that new pleasures are brought within the reach of money; and the mind, if trained to habits of application in pursuits relinquished, will still find ample scope for renewed and constantly varying activity, in seeking to blend the beauties of Art with those of Nature, and its own higher culture with that of field or park or garden. The taste once called upon to determine the "architecture" of a brown stone front or decide the proportions of a counting-room, has here free play over lawn and hill and woodland, and may draw its own landscapes with decorative or creative hand, where each coming Spring-time will clothe them with increasing beauty and each succeeding Autumn bring the fruits of some new result accomplished.

There are abundant and bounteous favors which Nature dispenses with lavish hand for all. But she nevertheless reserves, like many another maiden, a brighter smile and softer welcome for those who woo her—not with a practical out-look for the dowry of her golden harvests, but well-provided lovers, who can furnish her with a fine establishment, study her every gentle or wild caprice, and follow at any cost whithersoever her beck may lead. To these, how pliant she becomes! And yet how long it has taken to convince them that her charms are worth the winning.

As a nation, we have learned this lesson slowly, but the past score of years has shown a wonderful advancement, and now, with a vast and constantly increasing number of Rural Homes, on which more or less of wealth and taste have been expended, we can also count, perhaps upon our fingers, here and there, residences and estates where reminiscences of those which travellers describe in other countries can be recalled without a blush. Prominent on this little list, is "Ellerslie," the residence of Hon. WM. KELLY, near Rhinebeck, on the Eastern bank of the Hudson,—to which Mr. QUINCY, in his Elmira address, so happily alluded, as equalling, both in position and in cultivation, "any of the estates of world-wide reputation he had ever visited in Europe."

This is high praise, but well deserved. The natural advantages of the place are even greater than we had supposed, and during the long period since it has been in the possession of Mr. KELLY, he has omitted nothing which could heighten the effect of these advantages, or add to the grace and beauty of the whole. The lawns prove conclusively that climate presents no obstacle to our attaining the same perfection of closely shaven turf here, which is so greatly admired in England. The general disposition of the grounds is a study in landscape gardening even for the most proficient in that beautiful art. The simple and convenient arrangement of the extensive conservatories and propagating houses, is not less admirable than the rarities they contain, including one of the best American collections of orchids and ferns; of the cactus family, and of variegated leaved plants; together with many specimens of more common species, noteworthy for skillful growing, or as varieties of recent introduction. Just before the door, too, there stands perhaps the largest specimen in the Atlantic States, of the *Washingtonia gigantea*.

This note was not commenced, however, with any idea of undertaking at the present time even a bare outline of "Ellerslie" and its attractions. We do think, nevertheless, that Americans should be more generally aware of the existence here of such estates, and take far more pride than they do in the fact that there *are* such among us, although the number may be small. To wander through the grounds and out-buildings at Mr. KELLY'S—to roll along over the excellent roads which border the place, and notice the perfection of neatness both without and within—to visit the extensive farmstead where one of our finest herds of Short-Horns is tended with the same thorough-going care manifested in every other department—above all, perhaps, to return through the drive, which is a full mile in length from the entrance gate to the mansion, and which is probably one of the most beautiful of its kind in the country—certainly the finest we have yet seen—would possibly do more to convince an Englishman visiting America that as a people we *are* verging by degrees toward a civilized condition, than all the public edifices at Washington, or the marble fronted warehouses at New-York. Every American is careful in going to England, to include among the prominent "sights" of the journey just such lordly places as this; and when three thousand miles of water intervene between them and his own home, no notes of admiration can be too expressive of eulogy and delight. Progress is making toward a similar appreciation of similar beauties among ourselves; under the guidance of DOWNING, since whose lamented death ten

years will have rolled away on the 28th of the present month, much good seed was sown, and its fruits, as we began by intimating, are every day springing up more freely and more freshly all around us.

☞ We have already mentioned that the Ohio State Fair for 1862, being the thirteenth annual Fair held under the auspices of the State Board of Agriculture, will be held in the city of Cleveland, O., the 16th, 17th, 18th, and 19th of September next. There are very few places situated on the confines of the State, which are so readily accessible from almost all points of the compass as Cleveland. It has become proverbial for the beauty and elegance of its streets and dwellings, no less than its citizens for hospitality. A city which has increased its population from 10,000 in 1850 to 50,000 in 1860, necessarily presents many points of interest and attraction to the visitor. The State Fair must draw thither an immense attendance from all parts of Ohio, and from other States, and the farmers of Western New-York will doubtless feel repaid for the journey by the many attractions both of the occasion and the place.

Agricultural Education.—We publish this week the very important law recently passed by Congress, donating to the several States the amount of 30,000 acres, (for each representative and senator in Congress) of the public lands, the proceeds of which are expressly devoted to "the endowment, support and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to Agriculture and the Mechanic Arts, in such manner as the legislature of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life." The fund thus set apart, is amply sufficient to endow, in the most liberal manner, if properly husbanded and cared for, all the institutions necessary to accomplish all that can be desired in regard to the better education of the industrial classes of our country.

The Downer Strawberry.—We have now cultivated this famous Kentucky variety three years. The first year (1860) it bore nothing. In 1861, it bore a small crop of small berries. We felt like condemning it for this latitude. The plants have been allowed to run thickly together, and to take care of themselves. This summer it has borne most profusely; it has been now ripening two or three weeks, and many more berries appear yet to ripen. The berries are of good flavor, (not the very highest, but quite respectable,) are handsome in color and form, and pick easily—they are probably too soft for marketing. If the present very favorable year is not an exception for them, they will be likely to prove a valuable sort for home use.

Fine Seedling Strawberry.—Mr. George Clapp of Auburn, N. Y., has presented us a basket of strawberries, which he calls "Russell's Great Prolific Seedling," it having been raised from seed in 1856, by Mr. Harvey Russell of Seneca Falls. It is represented as "a plant of unusually vigorous growth and very hardy, producing enormously large crops of uniform large size. The leaves are moderately large and of rather light color—fruit stalks of medium length, shooting out from all sides of the plant. Fruit very large, roundish oval or slightly conical, deep shining scarlet, with seed slightly imbedded; flesh firm with a rich and agreeable flavor. Ripens about medium season—fruit hangs long on the stalk, and retains its size and flavor to the last." The berries shown us, nearly bear out this description, and we doubt not it is worthy of extensive trial. Certainly if it will produce with ordinary culture, fruit such as that shown us, it will equal any variety sold in our market.

Annual Register for 1863.—The attention of ADVERTISERS is called to the fact that the Illustrated Annual Register of Rural Affairs for 1863, is now in Press. No similar work approaches it in circulation among reading farmers, and all that class who are especially interested in Agricultural and Horticultural Improvement. The number of pages devoted to advertisements being limited, many applications have each year reached us too late for insertion, and it is on this account, as well as in order that the work may be completed as early as practicable, that those who wish for space in this department should *send in their advertisements immediately.* Prices as in previous numbers: One page, twenty dollars; one-half page, twelve dollars; one-third page, eight dollars; business cards from two to five dollars. Advertisements will be handsomely displayed, according to the room they are expected to occupy.

Curiosity in Wool.—A. W. Hovey, Esq., of Pontiac, Mich., encloses to the Country Gentleman a very singular specimen of wool. It is black where clipped, close to the skin, then white for not quite half an inch, then black again for a little more than an inch, then white for about the same distance, while the outer end has several more narrow stripes of alternate black and white. Mr. H. says: "This sample is precisely like all the fleece of the sheep in color. The sheep is a ewe, from a pure Spanish Merino dam, brought into this State from Vermont, and by a French Merino buck. She is two years old, and was raised in this township by Robert Percy, who now owns her. From her birth, she has grown wool like this lock, sometimes black and sometimes white, but without any regular period, as you will perceive, in the changes. The skin is black, and she is now starting the black stripe again. Mr. Percy will not shear her this season, as he wishes to get two years growth of staple before clipping."

Two Illustrations of "Transmutation."—The North British Agriculturist has a correspondent at the Great Exhibition at London, who writes that among the grain shown, one exhibitor from near New Market "shows 'barley from oats.' This is not new, as in Germany the same result has been obtained. This German discovery gave rise to a still more interesting fact in natural history. A learned Professor like other learned Professors, had been at one period of his life a boy, when he was the owner of a beautiful pet lamb, and being extremely desirous that the lamb should be transformed into a little dog, he made his wishes known. Having one evening put his pet away in its crib for the night, he was greatly surprised and highly gratified next morning to find that it had been transformed during the night into a beautiful little dog. Matter-of-fact people believed, however, that his mother had made the arrangements for the metamorphosis."

Connecticut State Agricultural Society.—This Society have decided to hold their next Fair at Hartford, Oct. 7th, 8th, 9th and 10th. The grounds, which are the same as previously occupied, are much improved, and the half mile track for the exhibition of horses is very fine. At a meeting of the Executive Committee on the 11th inst., H. A. Dyer, the Corresponding Secretary, resigned, and T. S. Gold, Esq., of West Cornwall, was appointed in his place. The President, E. H. Hyde 2d, of Stafford, C. M. Pond of Hartford, with the Secretary, form a subcommittee of three to make all necessary arrangements for the Exhibition.

Dr. Kirtland's Cherries.—We acknowledge the receipt of a box containing a fine collection of seven varieties of Dr. Kirtland's new cherries, in excellent condition, from Ellwanger & Barry of Rochester. As there was a copious supply of each sort, we have given them a pretty thorough examination, in connection with a number of assistants. The diversity of opinion expressed in relation to their quality, shows that while there must be considerable similarity as regards their excellence, yet from the diversity of palates, they did not at all agree which was the best. The varieties were, *Black Hawk*, *Osceola*, *Red Jacket*, *Tecumseh*, *Delicate*, *Pontiac*, and *Kirtland's Mary;* and one of the committee of judges, made a list in this order as to their excellence. The next placed Delicate first, then Black Hawk and Kirtland's Mary equal, then Osceola, Red Jacket, Pontiac, and Tecumseh. A third had them in the following order:—Delicate, Red Jacket, Tecumseh, Black Hawk, Osceola, Kirtland's Mary, Pontiac; and a fourth,—Black Hawk, Tecumseh, (best sour,) Kirtland's Mary, Delicate, Red Jacket, Osceola, Pontiac. Our own list differed from all, namely, Kirtland's Mary, Delicate, Black Hawk, Osceola, Pontiac, and Tecumseh. The last we regarded as barely tolerable, while another placed it as high as second—the one preferred it for its sourness, and the other disliked it for the same reason.

The Osceola is a large fine looking fruit, and the Red Jacket is of a showy light red color, the fruit rather acid. Kirtland's Mary was largest of all, and a handsome cherry —placed nearly first by some and nearly last by others. Black Hawk had two votes as first, one as second, one as third, and one as fourth in quality. We mention this diversity to show the impossibility of one person making out a list of fruits that shall please all others.

It appears that some of Dr. Kirtland's varieties, otherwise excellent, are too tender for general value. Ellwanger & Barry write us:—"We have also fruited Powhattan, Logan, and Jocosot, but they are now gone. The trees of some of these varieties are more tender than the old sorts, but a few will prove hardy. Osceola, Delicate and Red Jacket will be hardy, and doubtless some others. Black Hawk and Kirtland's Mary are very tender. Mammoth is a noble looking tree, but refuses to bear."

The box also contained specimens of Great Bigarreau and Monstreuse de Mezel, which they think identical, in accordance with our own previous opinion. Not the slightest difference could be discerned in any respect.

☞ Among last week's despatches from Washington was the following:—

The new Department of Agriculture, authorised by recent act of Congress, has been organized. The rooms heretofore occupied by the Agricultural Division of the Patent Office have been set apart for the use of the Department. Isaac Newton, the Commissioner of Agriculture, is from Pennsylvania. The appointment of Chief Clerk has been given to Richard C. M'Cormick, of Long Island.

Killing Docks—Lousy Cattle.—I differ from some of your correspondents on some things. One said that if we cut docks below the crown it will kill them. I tried it, but they all sprouted again. Perhaps our Indiana docks are more tenacious of life than his. Another writer says that we should not make hen-roosts above cows, as the hens make the cows lousy. I have had a hen-roost over my cows for over twenty years, and the cows have never got lousy, and the hens never get their toes frozen, as the heat of the cows keeps the place warm. From reading and observation, I believe that every animal has a louse peculiar to itself, and I believe man has got two. Gibbon speaking of the Emperor Julian, says "his shaggy and populous beard," and in a note, "but the little animal which Julian names is a beast familiar to man, and signifies love." Dirt and poverty produce lice; I never saw a fat animal lousy. In Julian's case it was dirt. Some particular state of the blood may produce lice. It appears from Plutarch that it is a disease; he says Sylla and several others died of the lousy disease. J. J. C.
North Madison, Indiana.

☞ The quantity received at tide water, of Flour, or its equivalent in Wheat, is 318,189 barrels *greater*, from the opening of navigation to July 7th, this year, than for the corresponding period in 1861. The exports of breadstuffs from New York to Europe during the week ending July 5th were 890,394 bushels of grain and 89,197 barrels of flour, being the largest shipment of flour ever made to Europe from that port in one week. Provisions in extraordinarily large quantities are also going forward.

The following table shows the comparative receipts of flour and grain in Chicago during the first six months of the past four years:—

	Bushels.
1862	20,244,570
1861	17,536,763
1860	12,399,390
1859	5,396,199

☞ Mr. J. C. Taylor of Holmdel, N. J., has appointed his Annual Show and Sale of South-Down Sheep this year for the 3d of September next. An advertisement appears elsewhere, to which it may be added that Mr. Taylor invites attendance on the part of all interested in Sheep, whether desiring to purchase or not, as he intends to make it a *public exhibition* of his flock as well as a mere sale. Arrangements will accordingly be effected to run *a special steamboat* on that day for the accommodation of visitors from New-York, leaving the foot of Robinson Street at 9 A. M., for Keyport and returning at 6 P. M., so that the necessity of remaining over night may be obviated. This effort to meet the convenience of the public should be rewarded by a general turn-out of South-Down men; and we may even go so far as to promise that the friends of other breeds will also derive both pleasure and instruction from a day spent in visiting the Holmdel flock.

Ag. and Hort. Exhibitions.—The Illinois State Hort. Society will hold its next Exhibition at Bryan Hall, Chicago, commencing on Monday, Sept. 8, and continuing through the week. Some five hundred cash premiums are offered, and it is anticipated the display will be the finest and most extensive yet had by the Society. C. T. Chase, Esq., Chicago, the Secretary of the Society, will furnish prize lists.—The Henry Co. (Ill.) Fair will be held at Cambridge, Sept. 3, 4, 5.—The Lee Co. (Ill.) Fair, is to be at Dixon, Oct. 6, 7, 8, 9.—The Bucks Co. (Pa.) Fair, at Newtown, Sept. 24, 25.—The Franklin Co. (Vt.) Fair is to be at Fairfield, Sept. 17, 18.—The Saratoga Co. Fair at Saratoga Springs, Sept. 2, 3, 4, 5.—The border towns of the counties of Oneida, Otsego, Chenango, and Madison, have united in forming the Brookfield Union Agricultural Society, and will hold their first Fair at Brookfield, Sept. 24, 25.

Merited Premium.—We observe that among the premiums awarded by the Brooklyn Horticultural Society some time ago was one to Louis Menand, for "the best and most correct *labelling of plants*." Such premiums, wherever deserved, do honor both to the exhibitor and to the Society which awards them, for scientific accuracy is a high merit.

Inquiries and Answers.

COMPARATIVE VALUE OF GRAIN.—*A Subscriber* to your valuable Journal asks for a statement of the comparative value of corn, rye, oats, barley and peas, as food for horses, sheep and swine? What description of stock thrives best on rye meal? *Canada East.* [A great deal depends on circumstances, condition of the food, ground or unground; on the animal, whether taking on flesh readily or not, regularity of feeding, whether working or fattening, management, &c. The following may be taken, however, as an approximate statement of the value of each—the figures giving the quantity in pounds to be taken of each kind, to be equal to each of the others. The first column gives the result of analysis—the second by experiment or feeding:—

	By Analysis.	By Experiment.
Corn,	70	56
Rye,	58	49
Oats,	60	59
Barley.	65	51
Peas,	30	44

It will be observed that peas are richest—then rye—barley next by experiment, and oats by analysis—corn and oats nearly the same. Generally, what is good for one animal is good for another; but we have found rye meal especially excellent for horses.]

CHESTER COUNTY HOGS.—What is your opinion of the breed of hogs known as the Chester County Whites? I do not remember to have seen anything in their favor except from interested parties? ST. LAWRENCE. [The Chester county hogs are an excellent and valuable breed, but being rather more liable to vary than some established breeds, it is important to select the best animals. We know of no accurate, measured, reliable experiments to determine whether these or Suffolks and Berkshires will make the most pork from a given quantity of feed—the only sure test. Mere opinions and guess-work will not, and should not settle the question.]

HARROWS.—For stony land what is the best form of harrow, size of timbers, and size and number of teeth also? S. L. [A stout, double, square harrow is often made of about the following dimensions: Three timbers on each side the hinges, or six in all, each timber about 4 feet 8 inches long, 3 inches square, or 3 by 3½ inches—five teeth in each timber, or 30 in all—each tooth about ⅞ by ¾ of an inch, and a foot entire length. The strength may vary with the degree of stonyness, and the teeth may be set back a little to pass freely. Where there are few or no stone, many more and smaller teeth are more efficient.]

SOWING ORCHARD GRASS.—When and how should orchard grass be sown—in the spring and fall—on or with fall grain, or with oats? I desire to sow it with red clover for early cutting for stock. A statement of the best time and method of sowing Orchard grass in your columns would, I doubt not, be valuable to many of the readers of your useful journal. A. K. MCCLURE. [Orchard grass may be treated the same as timothy—sown in spring or early autumn—except that two bushels of the former should be sown per acre, as it is very light. It may be sown with autumn grain, and clover added early the following spring—or both may be sown together in early spring. Oats, unless sown quite thin, would not favor its rapid growth the first season. It forms an excellent early grass crop with clover.]

WASHING MACHINES.—For the information of many inquirers, we state briefly the mode of operation of the three prominent machines, advertised on former occasions in our columns. The *Metropolitan Machine* is constructed on the principle of the *pounding barrel*—by the addition of elastic pounders for the safety of the clothes, and a spring for working them. It is efficient and may be used for large families. The *Union Washing Machine* we have already described; by shutting in the steam from hot water, it obviates boiling; and is worked by a crank, rolling and pressing the clothes, and is also very efficient and easy to work, at the same time it is strongly and durably made. The "*Easy Washing Machine*" is a tub set on legs, and the clothes are rubbed between two surfaces, furrowed like a common wash board, one of these surfaces being the bottom of the tub, and the other a circular board upon it, worked by a lever fixed to its perpendicular axis. This a cheap and simple machine, and is well spoken of.

MUCK SWAMP.—A correspondent at Cairo, gives us a full account of his unsuccessful attempts at the culture and seeding of a muck swamp, which had been previously drained. Grass, buckwheat, oats, &c, do not grow or flourish. The muck is about two feet deep. We cannot, of course, without knowing more of it, prescribe a certain remedy for the difficulty; but we would recommend the application of lime or ashes or both, at the rate of 50 or 100 bushels per acre or more, with some manure, and if the subsoil could be dug and thrown over the surface, it might answer a good purpose.

SEEDING PASTURES.—I have a pasture of twenty acres which I use for hogs. On seeding it with timothy and clover, the timothy seed proved to be bad. I want more clover in it. How and when can I best succeed in getting in more clover without plowing it up. I have thought of sowing on clover seed late in the fall, and harrow thoroughly. Will the seed be likely to come up in the spring and do well? C. G. T. [Harrow the pasture well with a fine tooth harrow, late in autumn—and sow the clover seed very early in spring, and roll it, if the soil will admit, to cover the clover a fourth of an inch, or a very light brushing would be useful. If a coat of rotted manure or compost could be applied before the harrowing, so as to become finely broken up and mixed with the soil, it would greatly increase the certainty of the clover vegetating, and make the growth more vigorous.]

THE HOMESTEAD LAW.—Would you be good enough to give all the information you possess, regarding the new homestead law, lately passed by the United States Government? Where are the public lands situated? Does the law apply to all the states and territories—to the rebel states if brought back to the Union, and what difference is there in the land of which 160 acres can be taken, and that of which only 80? Is it on account of the quality of the land, or the distance from settlements? I think quite a number of young men here would avail themselves of it, if good land could be obtained within 10 or 12 miles of settlements. G. J. *Otonabee, C. W.* [In reply, we give the following abstract of the Homestead Law which we find in one of our exchanges. It grants 160 acres of public lands to any person (almost) who will settle on them and cultivate them, except reserved lands within fifty miles of certain railroads, and of these eighty acres. There is nothing in the act, however, to prevent a single man and a single woman, each being 21 years of age, from locating each eighty acres of these reserved and higher priced lands; and they are at perfect liberty to get married the day afterward. Any person, male or female, who is over 21 years of age, and a citizen of the United States, or who, not being yet a citizen, has made legal declaration of his intention to become one, or who, being a citizen under 21 years of age, is nevertheless the head of a family, or has spent fourteen days or over in the military service of the United States, and has never borne arms against the Federal Government nor given aid or comfort to its enemies, is entitled to the benefit of the bill.]

BACK VOLUMES OF THE CO. GENT.—In answer to a Wisconsin subscriber, we may state that several of the early volumes of this paper are difficult to procure, and that a complete set would therefore cost him more than his letter leads us to suppose he desires to spend "while corn is so low." But a very good substitute may be had in the bound vols. of THE CULTIVATOR. We can send the Third Series complete to him by Express, nine vols., muslin, 384 pages each, for $6.75—transportation of course at his expense.

BOOK ON GARDENING.—*L. D. I., Philadelphia.* We know of no such American work as you inquire for, embracing the culture of fruits, flowers and vegetables. We have good works on these subjects in separate volumes by different authors, but nothing like a general encyclopedia of gardening and horticulture.

HORSE HAY-FORK.—Which is the best hay fork in your opinion? Do you think Beardsley's is? Do you know of any good one-prong fork? J. S. *Fayette Co., Penn.* [We have not had a sufficient opportunity to compare the different sorts side by side—all are valuable.]

PASTURES.—What is the best way of getting a pasture into good grass, that is covered with ferns and other bushes, and where the principal grasses are wild? How will it do to sow grass seed, and then mow the bushes over it? R. [The way proposed will answer, taking care to repeat the process, and keep the weeds mowed down. Some may require grubbing up. The most perfect way would be to subdue the land by cultivation, and then seed to grass.]

ALDEN'S THILL CULTIVATOR.—Please tell me where this implement can be had? W. J. M. *Fair Haven, Ct.* [It was at one time made by Mr. Alden, at Auburn, but subsequently we think by parties in Utica, whose names we do not remember. The manufacturer should advertise his machine, if he wishes to find a market.]

WHITEWASHING FENCES, &c.

I wish to whitewash some fencing and outdoor work in the course of a few weeks, and would be glad if you would publish in your excellent COUNTRY GENTLEMAN, a recipe for making the whitewash, and whatever remarks on its use you may judge appropriate. Such a recipe and remarks would be of much service to many of your readers in this section.

Fabius, Onondaga Co., N. Y. IRA L. SPRAGUE.

We have tried many kinds of washes, but find nothing that is not mixed in *oil*, that will endure much better than common simple *lime wash*. This is very valuable to preserve wood and keep off moss; and to be most valuable and durable the great requisites are a pure strong lime, made into rather thin whitewash, and applied at midsummer when the wood is quite dry and ready to absorb it freely. Any ochre may be mixed for coloring, and it is said a small quantity of zinc will make it harder and more durable. We could give a long list of various compositions, but we question if they would be greatly better than the above.

[For the Country Gentleman and Cultivator.]

PRESERVING---THE BEST WAY.

Of the many improvements that have been made in domestic economy, within the last few years, perhaps there is none more useful as regards economy, health and convenience, than the new mode of preserving fruits and vegetables.

Formerly, it was considered necessary in order to preserve fruits, to add an equal weight of sugar, and stew it down to an almost indigestible mass.

By the new method, fruit of all kinds can be kept for an indefinite period, with the addition of but very little sugar—the natural taste of the fruit is not destroyed, and it is much cheaper as well as more conducive to health.

The whole secret consists in cooking the fruit through and *keeping the air from it.* There are many patent jars, some of tin, some glass, some stone; some seal with an india rubber ring which is screwed on, others use wire and others cement—but in this as with most other things, the simplest is the best.

Of the different kinds of jars I have used, I like best the common glass bottles, with large mouths, holding about a quart; they are cheaper and "as good as any."

Tin is cheap, but it will corode and the condition of the fruit cannot be ascertained. Our method of preparing the fruit, is to put it into the preserving kettle, and sweeten it with syrup, just sufficient for table use. The syrup is made by dissolving 2 lbs. of sugar in one quart of water. Heat the fruit till it is scalded through, and put it in hot. The bottles should be warmed by the fire or in warm water. Fill the bottles to where the bottom of the cork will come, and shake them slightly to get out the air bubbles. The cork should be forced in tightly, and under each one should be a stout piece of twine tied around the neck to prevent the cork being forced in when the fruit cools.

Then apply wax made of 1 lb. rosin to 2 oz. tallow. A good coat of this should be put on, and the bottles placed in a cool cellar and examined occasionally. The fruit should be ripe, but free from decay.

By this method the fruit is ready at all times for the table, and our luxuries and comforts can be greatly increased.

ST. LAWRENCE.

[For the Country Gentleman and Cultivator.]

Sorghum Syrup---Keeping Vegetables.

MESSRS. EDITORS—In the Co. GENT. of June 19th, page 395, is an article on the "Manufacture of Sorghum Sugar," written by me, in which an omission was made, which I would like to have supplied, as it leaves the sense very imperfectly expressed. It should read—"when the juice is ready for boiling, before warming, add one gill of milk of lime, (made by placing stone lime in a close vessel, and keeping covered till slacked; when used stir it up to the consistency of good white-wash) to thirty gallons of juice." The part after the parenthesis was omitted in print. I am willing to bear part of the blame myself, for in my haste in writing the article I omitted it, and not having time to re-write it, it was interlined.

In the same number O. H. K. of Minnesota, inquires how to preserve vegetables for winter use. We have been successful in keeping pie-plant, by stewing it till quite soft, and putting it boiling hot, into jugs or fruit cans, and sealing up with equal parts of bees-wax and rosin melted together.

String beans may be kept in either of the following ways: when of the proper age for cooking, pull and string same as usual, and spread them out thinly in the shade to dry; cook same as when green. Or if they are early enough to get ripe before frost, leave them on the vines till ripe, then gather. When wanted for use, pour boiling water over them and let them stand a few minutes, when, by using a knife to start the ends, they may be strung almost as readily as when green. I have never had any experience in keeping the other articles mentioned. S. S. BOZARTH.

West Liberty, Iowa, July 7th, 1862.

CONTENTS OF THIS NUMBER.

THE FARM.

THE GRAZIER AND BREEDER.

HORTICULTURAL DEPARTMENT.

THE DAIRY DEPARTMENT.

DOMESTIC ECONOMY.

FARM BUILDINGS.

THE POULTRY YARD.

THE BEE-KEEPER'S DEPARTMENT.

ENTOMOLOGY.

ILLUSTRATIONS.